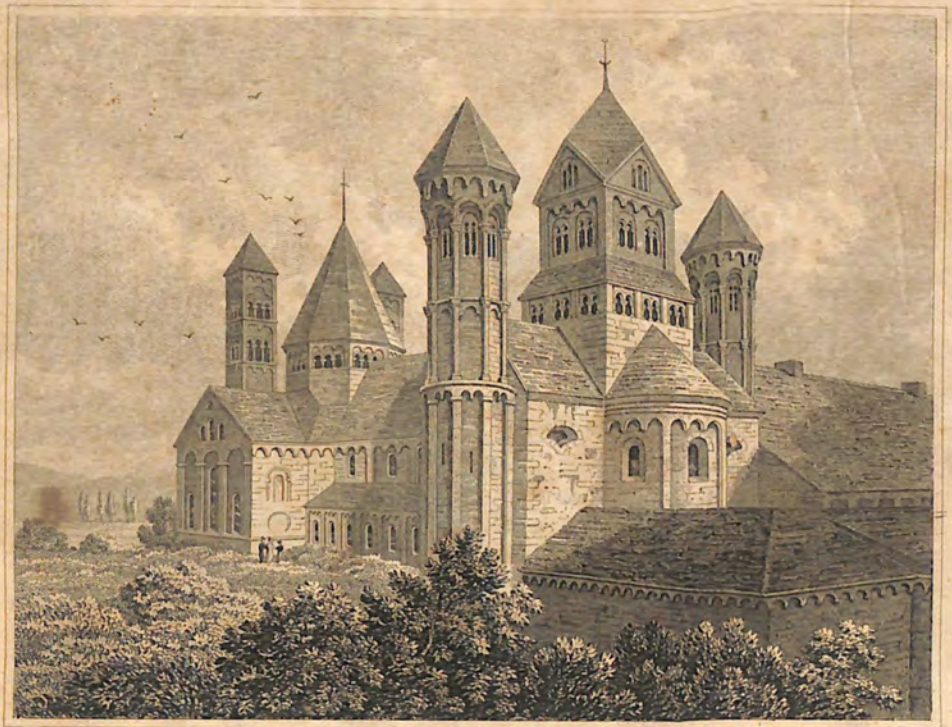

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ARCHITECTURAL NOTES

ON

GERMAN CHURCHES;

WITH

NOTES WRITTEN DURING AN ARCHITECTURAL TOUR

IN

PICARDY AND NORMANDY.

81049

BY

THE REV. W. WHEWELL, B.D.,
MASTER OF TRINITY COLLEGE, CAMBRIDGE.

THE THIRD EDITION,

TO WHICH ARE ADDED

NOTES ON THE CHURCHES OF THE RHINE,

BY M. F. DE LASSAULX,

ARCHITECTURAL INSPECTOR TO THE KING OF PRUSSIA.

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PLATE I. Represents the steps which form the transition from circular to pointed vaulting. Fig 1. is Roman vaulting (see p. 37), the vault-arches in both directions being semi-circular. Fig. 2. represents the kind of vaulting called Welch vaulting, which was necessary when the length and breadth of the vaulted space were different, and both were covered with semi-circular vaults. Fig. 3. shews the way in which this form was avoided (p. 37; and p. 58, No. 6.) the vault-arch in one direction being still semi-circular, and this vault being crossed by another pointed one, of the same height but smaller width. Fig. 4. (p. 37; and p. 58, No. 6.) has pointed vault-arches both ways. Fig. 5. (p. 60, No. 8.) represents sex-partite vaulting: all the vaults being pointed. Fig. 7. is octo-partite vaulting on a square base, and Fig. 8. octopartite vaulting on an octagonal base (p. 62, and 63, Nos. 9. and 10.). For Fig. 6. see Plate IV.

Under the figures in this plate are placed the symbols which would represent the vaulting according to the system explained p. 123.

PLATE II. Three Ground-Plans with their vaulting, (see p. 78). Fig. 9, the Cathedral at Mentz, represents a Roman-esque Cathedral, with both east and west apses, two transepts, towers at each crossing, and a pair of towers at each end (p. 79). The vaulting of the east apse is a semi-dome (p. 45), of the west apse, polygonal with acute cells (p. 63). The vaulting of the center aisle is groined, with only the transverse ribs pointed (p. 58); the next lateral aisles are Roman vaulting; the exterior aisles are of more modern work, and are pointed both ways.

Fig. 10, St Aposteln at Cologne. A transverse-triapsal church, with a large western tower; two smaller towers at the east, and an octagonal pyramid at the eastern crossing. (See p. 79). It has also a western transept. The apses are vaulted

with semi-domes: the old vaulting of the center aisle is sexpartite on the double compartments, and cylindrical on the single ones; the modern vaulting (represented by dotted lines) has acute transverse vaults over each single compartment, the longitudinal vault being semi-circular. (See p. 62, 98, and 118).

Fig. 11. Abbey Church of Laach. A parallel-triapsal church, (see p. 98), with a semi-circular apse at each end, a pair of square towers at the east, and of round towers at the west, two transepts and towers at the two crossings. (See p. 79). The three aisles have each Roman vaulting in single compartments. There are three apses towards the east, each with a semi-dome A portal-cloister (see p. 105) occurs at the west end.

These Plans were drawn by the eye without any measurement, and have no pretensions to exactness of proportions or details.

PLATE III. Perspective view of Laach, exhibiting the six towers just mentioned, with their galleries, windows, panneling, corbel-tables, gables and roofing. (See p. 80). The semi-circular *west* end also is shewn, and part of the portal-cloister.

PLATE IV. Fig. 6. Part of a Romanesque Cathedral, with Roman vaulting in double compartments; shewing the origin of the triforium space, clerestory, alternate piers, and clerestory windows in pairs. (See p. 43, and 49.)

Fig. 12. A compartment of the Church at Sinzig, drawn in memorandum lines only, (see p. 124), exhibiting the principal and intermediate piers, vaulting pillars, triforium, and fan-shaped clerestory windows. (See p. 94.)

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Fig. 14. Ground Plan of a pillar, with square abacuses set obliquely. (See p. 95.)

Fig. 15. Cornice which occurs over the apsidal gallery. (See p. 102.)

PREFACE TO THE THIRD EDITION.

As the *Architectural Notes on German Churches* have for some time been out of print, and as the little book which contains them is copiously quoted in a striking article which has recently appeared in the *Quarterly Review*, a new edition of the work has been recommended by the publishers.

Both the *Notes on German Churches* and the *Notes written during an Architectural Tour in Normandy* are now reprinted without alteration. For though they contain several doubtful or untenable opinions, it would be impossible to rectify such defects without entirely altering the nature and character of the publication.

My Notes, as they originally appeared, contained certain views of the theoretical history of architecture, which gave to the facts described, a manifest significance and connection; and if the interpretations thus offered, of the resemblances and differences of different buildings, were such as have not always been confirmed by further research, they had at least truth enough in them to make the inspection of architectural monuments, such as those of which I had spoken, attractive to many Readers as well as to the Author. In this manner my classifications and descriptions, somewhat precarious and

hypothetical though they were, had perhaps some share in promoting that clearer insight into the nature of architecture which has been diffused among us in the course of the last few years, and of which the Reviewer speaks in the above mentioned article. The faults of my work could not be removed without destroying any interest which may belong to it; and I now put it forth in its original form, not as containing doctrine which I am at present disposed universally to defend, but as illustrating the recent progress of men's minds on the subject of architecture. Theoretical views, even when only partly true, or even when false, may serve to exhibit clearly and pointedly relations which would otherwise seem vague and obscure; and, with proper warning, they need not pervert our views of facts. If in these pages I have mixed that theoretical history of architecture which is derived from the relations of style, with the actual history of buildings, which must rest upon documents and dates, I hope that this has not been done in such a way as to lead any reader into error or confusion.

Doubtless, however, it is desirable to combine these two lines of history; and it is highly interesting to compare the place of a building in the theoretical and in the actual course of architecture. But the determination of the dates of buildings and parts of buildings, from external and documentary evidence, is a far more laborious and

difficult process than the reference of such specimens to established architectural styles. I have, on all accounts, been compelled, for the most part, to leave this more arduous part of the antiquary's task to others. But in the present edition, I have added to the Notes on German Churches, a contribution from an abler hand, which may in some measure supply this deficiency, so far as regards the churches on the Rhine. My valued friend, M. de Lassaulx of Coblentz, whose accurate and comprehensive knowledge of the history of German architecture is universally recognized in his own country, has added a series of Historical Architectural Remarks to that which is considered the best of the "Rhine Tours." I have inserted in this edition a translation of these Remarks. In consequence of the want of leisure, I have been compelled to consign to another hand the task of translation, but I hope that errors in the rendering of architectural terms and phrases have been avoided.

The second portion of this volume contains Notes of an Architectural Tour in Normandy. For additional remarks on the edifices referred to in this part, I may refer to the communications made by my fellow traveller to the Society of Antiquaries, (*Four Letters on the Ecclesiastical Architecture of France, by Thomas Rickman, Esq.*, 1833.) And I cannot pass over the present occasion of gratefully acknowledging the obligations which all

students of Architecture have to that excellent and sagacious man, whose recent loss we are still deploring. His classification of the styles of English Architecture, with his selection of the distinctive characters of each style, and his fixation of the language of the science, were strokes of genius which quite changed the aspect of the subject, as soon as their influence was generally diffused. Instead of a wavering use of vague terms, and a loose reference to undefined distinctions, which had previously prevailed in works on Christian Architecture, Mr Rickman offered to the world a phraseology so exact that, as he said, "the student should be able to draw the design from the description," and a division of styles, followed out into its characters in every member of the architecture. He thus enabled his readers to acquire a knowledge of details as precise as that possessed by practical builders, while at the same time this study of particulars was made subservient to the most comprehensive views of antiquarian criticism; and by this means the literary and the practical architect were brought to a mutual understanding, which has been of immense service to both.

The interest which the study of architecture has now acquired among cultivated men is shewn by a vast number of architectural books which have been recently published, and of architectural societies which have been formed: but, rendering

all due honour to the merits and exertions of subsequent writers and critics, we may still venture to say that the foundation of all the most valuable part of that which they have done with respect to English Architecture, is laid in the labours of RICKMAN.

TRINITY COLLEGE,
June 27, 1842.

PREFACE TO THE SECOND EDITION.

A NEW edition of the *Architectural Notes on German Churches* having been demanded for some time, I now republish the work, adding to it another Collection of Architectural Notes, of the same kind, and with the same humble pretensions. The hypotheses, comparisons and classifications which I have employed in these remarks, must be looked upon rather as means of describing what I saw, in such a manner as to make it bear upon the general history and philosophy of the art, than as assertions made confidently after thorough examination of the whole subject. For the latter task I had, as I have stated, no leisure or opportunity.

It has been therefore no source of mortification to me, that Dr Boisserée, after speaking of the *Architectural Notes* in a manner far more favourable than, from a person so profoundly acquainted with German Architecture, I had ventured to hope, has said that I have, "though rightly, too exclusively assumed the method of vaulting as the leading principle" of the developement of the pointed style*: or that Mr Willis, in his singularly instructive *Remarks on the Architecture of the Middle Ages*, (p. iv.) has declared himself compelled

* Denkmäle der Bankunst am Nieder Rhein, p. 40.

to dissent from my hypothesis. Though the hypothesis may not contain the whole account of the formation of the Gothic style, it may still have the effect of bringing into view relations and connexions which really exerted a powerful influence on the progress of architecture: and thus it will have an important place even in those theories which ascribe the rise of Gothic Architecture to the joint operation of many causes. But before I attempt to point out what place this is, I will say a word on the present state of the problem.

The architecture, like the literature, which sprang up in the middle ages in transalpine Europe, has gradually risen from contempt to honour. First despised, then tolerated as convenient, then wondered at as whimsical and lawless, it has at length come to be admired as beautiful and excellent, and, at the present day, takes its seat in equal dignity by the side of the Art of ancient Greece and Rome. It is now acknowledged that this architecture has its own proper principles of truth and unity, and is to be comprehended and criticised by reference to these, and not by applying to it rules extracted from a different class of works, or by demanding of it a symmetry and simplicity as foreign to its nature, as "the unities" are to the modern historical drama. This acknowledgement was long before it came, but it is now probably generally assented to. "Gothic Architecture," says an intelligent writer

in the *Quarterly Review* for July 1827, "is an organic whole, having within it a living vegetating germ. Its parts and lines are linked and united, they spring and grow out of each other." So long as men were blind to this character of unity and connexion in the members of this form of art, it was impossible that they could speculate with any distinctness or success on the conditions and causes of its rise and progress; so long as they did not perceive clearly *what* it was, they could not discern *how* it came to be; so long as they did not understand the language of Gothic Architecture, they could not trace its phrases to their roots. So long as mere arbitrary, or at least partial forms (as the pointed-arch) were the received marks by which this style was recognized among antiquaries, they could not philosophically investigate the origin and developement of its principles. And even after it was perceived that this architecture *had* principles, that it was a connected and organic whole, much confusion and indistinctness still remained to perplex the enquiry. Even after it was seen that Gothic architecture had general laws, it was by no means easy to see what those laws were; though the spectator perceived that it had vitality, it was a hard task to put into words the principle of its life. The ancient metaphysicians, in this respect wiser than the modern ones, made definition not the first, but the *last* step in knowledge. Assuredly,

in matters of classification, and especially in matters of Art, a perception of difference, even an exact appreciation of the distinction, and an inward possession of the principles of the opposite instances, may long precede the power of stating the principles in distinct abstract terms. In such cases, a criterion which will bear a general application strikes us as something of the nature of a discovery: it is, and deserves to be, applauded as a specimen of "true wit" according to the poet's description of it:

"What oft was thought, but ne'er so well expressed."

I will not undertake to assert that such a definition of the essential principles of Gothic architecture has ever been offered to us; but I do not hesitate to say, that, in my opinion, Mr Rickman and Mr Willis together have given us such a collection of fundamental maxims with regard to the differences and antitheses of this style and the rival one, as may stand in the place of a definition for the purposes of that investigation of which I have been speaking. I refer to the statement of the distinctions of the Classical and Gothic Styles, which Mr Rickman has exhibited in two parallel columns, (*Attempt to discriminate the Styles of Architecture*, 4th edition, p. 110), and to which Mr Willis has made some important additions in the same form, (*Remarks on Architecture*, p. 158). These tabular statements of the leading features of Gothic as contrasted with Grecian architecture,

ought to be constantly present to the minds of those who are endeavouring to arrive at any knowledge on this subject, and are quite invaluable for the distinctness they give to our views and speculations.

By referring to these statements, it will be seen that, among the features of *decorative construction* which occur in the styles of the middle ages, and which did not occur in the styles of Greece and Rome, we may select the following five as of primary importance:

1. The arch is essential, the entablature is not; and the columns support arches instead of entablatures.

2. There are any number of planes of decoration one behind the other. When we have in this way several arches under one, we are led, as Mr Willis has shown, to *tracery;* when we have arches of different forms one under another, we are led to *foliation.*

3. The weights are divided into as many parts as possible, and these are given to independent props; whence we have, among other results, *clustered* piers and pillars.

4. The diagonal pressures of the arch are displayed, whence we have *buttresses* and *pinnacles.*

5. And generally, the running and dominant lines are vertical in this style, as they were horizontal in the ancient styles.

In this statement the pointed arch enters as one of the various forms of arches mentioned in the second rule; and though its use became afterwards almost universal and exclusive, it can never be looked upon as one of the great essentials of the style, or placed upon the same footing with the principles just enumerated. What we have to do then, if we would follow to its sources the history of Gothic architecture, is to trace, as far as we can, from what origin, and under what circumstances, each of these principles made its way into general use in the buildings of the middle ages.

The defect in the earlier investigations of this subject was, that they attended only to a portion of the second of these principles, neglecting almost entirely the others. Some traced the pointed arch to the countries of the East; and these persons were, by their brother antiquaries, playfully termed Ostrogoths. They have always been a powerful body, and I perceive that Mr Willis himself joins this eastern horde: to this I can easily reconcile myself, if it is borne in mind that he goes with them only as far as the arch; and that whatever influence the new and fantastical forms of openings may have had on the details of the new style, they go but a very little way in constituting its essence. Indeed, we can hardly refuse to allow that the pointed arch (as well as several other forms) is indigenous in the East, whether or not we assert that

it flowed into the West from thence: for we cannot easily persuade ourselves that all such arches in Oriental countries are derived from the influence of European art. But it will be found that in the Oriental examples we miss exactly those other principles above stated, which entitle the architecture to be termed Gothic in our classification.

In assigning the derivation of each of the above five principles, much probably may yet be effected by antiquarian and historical labour; since we have now the object of our research far more distinctly before our eyes than we had before the publication of Mr Willis's *Remarks*. By what has already been done, we see something of the probable origin of these principles, and of the processes by which they have been introduced and established.

Thus the change in the office of the columns, from supporting the entablature to supporting the arch, almost inevitably followed after the introduction of the arch; since, as is observed in the following pages, the arch was the principal opening, and the columns the principal supports.

The introduction of several planes of decoration is one of the most material steps in the progress of the new style, and has not, so far as I am aware, been historically investigated. It can hardly be doubted that this mode of building is of European origin, for to this day it is not, I believe, effectively employed in the architecture of any other country.

The first suggestion of this combination may be assigned to the Roman introduction of the arch into Grecian achitecture; for, in this manner, there were produced two planes of decoration; one, consisting of the traditional scheme of structure, the columns and entablature; the other behind it, containing the real construction, the arch and the impost mouldings. And though this combination is, in reality, incongruous and inevitably transitional, it would be impossible for a genuine artist not to perceive that it disclosed an extraordinary richness and depth of effect: and the European architects of the middle ages who could appreciate and admire this effect, were naturally led to carry it still further by introducing other additional planes. They then sought to vary the forms and characters of these planes, and in doing this they may have adopted from Oriental or other foreign countries (as I have already allowed) the various forms of arch, pointed, trefoil or ogee, which fancy had produced among nations whose architecture had no organic principle to control such caprices. Thus we see in modern Italian architecture a wanton and fantastical love of variety in the forms of pediments. But in the middle ages, the general character and conditions of the system soon reduced all other forms of arch into an entire subordination to the pointed.

Again, the same examples which presented the multiplied planes of decoration, suggested also the

partition of support; for the columns and the arch form two different mechanical systems. Now, in order to consider a work of art as beautiful, we must see, or seem to see, the relations of its parts with clearness and definiteness. Conceptions which are loose, incomplete, scanty, partial, can never leave us pleased and gratified, if we are capable of full and steady comprehensions. The desire for this completeness and definiteness in our conceptions of objects of art, may be assumed as one of the influences by which art is formed and modified. This tendency, combined with the geometrical faculty, with the clear notion of space, led to the combination of various planes of tracery, and to the formation of solid and complex masses in which the solidity and the complexity were palpably lightened and simplified by subordination of position and form. In like manner, the same love of distinctness of apparent relations, combining with the mechanical faculty, with the clear notion of force and resistance, led to the apparent distribution of the weights and thrusts of the visible members of the architecture to a number of different props and supports. And thus, using Mr Willis's valuable distinctions and terms, *compound-arches* led to *edge-shafts* in the transalpine parts of Europe, while a more superficial application of the same principle produced rolls and *nook-shafts* in Italy; and these features of

Romanesque architecture led the way to Gothic. The same consideration applies to that which I have quoted as the fourth distinctive maxim of Gothic architecture, the studious display of the diagonal pressures of the arch, and the consequent introduction of buttresses, pinnacles, corner-turrets, and other features.

The remaining maxim of those above stated, the predominant sway of the vertical lines of the structure, is of a more wide and general nature than those which I have hitherto noticed. This is, in fact, the peculiar and characteristic principle of the Gothic style; and whatever may be the details of the building, if this principle be not unequivocally and throughout enunciated, the work is not true and genuine Gothic architecture. We may see in many parts of Europe, and especially in Italy, how inefficient pointed arches alone, and any other of the mere formalities of the style, are to convey its true spirit and character, when this supreme principle does not rightly operate.

This, then, I conceive to be really the formative principle of the Gothic architecture, and the first full apprehension of this idea to be the effort of taste to which that form of art is due. It was this thought which gave unity and consistency to the new style, and disclosed a common tendency in the changes which had been going on in the different members of the architecture. And the

very fact of this character being, when once applied, so manifest and simple a mode of combining the parts of the structure into a harmonious whole, shows how much of genius there was in the discovery, since undoubtedly there was a time when the principle did not appear in the forms of buildings, and there still are countries which can shew no examples of it, and architects who have not learnt its true meaning.

In a succeeding part of this Volume I have endeavoured further to illustrate this, and especially to make it appear, that the habit of considering the interior of churches as the most important field for the display of architectural style and beauty, led almost irresistibly to the introduction of the vertical principle. Indeed I may observe that the interior gave rise to the most ornamental members and to the general forms of composition of Gothic architecture, as the exterior did of Grecian. For though classical columns may be used in the interior of buildings, that is not their genuine position, as, even when so used, their cornice informs us; while the columns of Gothic buildings are piers with shafts attached for purposes of vaulting, and thus essentially belong to an interior.

I have however further to remark that among the distinctions which I have quoted from the works of Mr Rickman and Mr Willis, there is not any which refers especially to the roof of the building.

But in another part of his book Mr Willis has considered this subject with his usual sagacity. "In the Decorative construction of a Gothic vault," he says at p. 81, "the ribs assume the principal part in the support of the roof;" whereas in a Roman building the vault lies as a solid mass upon the walls, its framework not having any ostensible mechanical relation to the structure below. I had endeavoured to shew in my Notes on German Churches, that the desire of constructing arched vaults crossing each other led to the general use of the pointed-arch; and I still think that the attempt to construct a vaulted covering, *in such a manner that it should be in architectural harmony with the rest of the structure,* did tend more than any other cause to the prevalence of such arches. It is true, as Mr Willis has observed, that the abstract problem of vaulting an oblong space had been solved by the Romans, so that we cannot ascribe the invention of pointed arches to the bare necessities which such vaulting introduced. But how could a portion of Roman vaulting, with its sinuous groining line, have been placed on a compartment of a church in which such tendencies as we have been considering were at work to modify and connect the members? While all other parts, arches, piers, openings, &c. are traced with strong lines, and brought out by shadow after shadow on the retiring surfaces, shall the vault remain a smooth and ribless sheet of

stone? While all the other parts of the structure have their lines of bearing made prominent and conspicuous, shall the roof, the most remarkable part of the mechanical construction, have no apparent mechanism, and give to the eye none of that pleasure which the display of constructive relation produces? This would manifestly be inconsistent, unsatisfactory, unsightly. We must then have, in the roof, ribs, transverse, longitudinal, and especially diagonal, because at the groin we have a solid projecting edge, apparently unsupported. But shall these diagonal ribs follow the sinuous line of the unequal-sided Roman vaulting? It is clear that this would be both very ugly, and inefficient for the requisite purpose. We must therefore have some mode of vaulting which will provide ribs capable of being acknowledged by the eye as lines of support in the construction, lines of order and reference in the decoration. Nor is this object effectually attained by the Byzantine invention of a dome resting on four pier masses, or by a series of such domical coverings; though this method was employed in Romanesque buildings, as I have mentioned in another part of the present volume. For if the compartments of the vault be really domes with no groins or edges, they cannot be consistently decorated till we introduce the process of general panneling, which only came into use as the last stage of Gothic ornamental construction, both in England, France and Ger-

many. And if the compartments are made oblong spaces domically vaulted, but with manifest groins, we want some general principle which shall select and fix the forms of these prominent lines in the decorative construction; nor can I discern any such principle which will answer the purpose, except the adoption of the pointed arch as the pervading rule. This necessity appears, I think, in the domical *ribbed* vaulting of the Early Gothic to which Mr Willis refers, p. 77. Thus a consistent and harmonious system of vaulting can be obtained in no way but by the use of pointed arches. I formerly attempted to show this, and to point at the manner in which the operation of this necessity appears in the churches of the Rhine; and I think the considerations and instances I there adduced must be allowed to have some weight. Even if we grant that the pointed arch among many other forms, as a matter of fancy and caprice, was borrowed from some foreign models, we have still to explain the way in which the pointed arch gained the mastery over all other forms, so that they became subordinate to it, as when the trefoil appears in feathering, or the ogee in canopies. This universal predominance of the pointed arch is no doubt the joint result of convenience and of harmony of form; and these causes operate in other parts of the fabric as well as in the vaulting; but in no other part so imperatively or so universally.

Looking back, then, at what has been said, we

obtain a consistent view of the origin of the Gothic style. The introduction of the arch undermined the Grecian system of entablature, and introduced a double plane of decoration; the ruin of taste and art supervening upon this, broke up still further the Roman traditional arrangement; caprice and the love of novelty introduced new forms of members and ornaments into this incoherent mass: arches of various shapes were invented or borrowed; the Byzantine dome was added to the previous forms of Roman vaulting*. So far all is a proof of disorganization. But then comes in a new principle of connexion first and of unity afterwards: the lines of pressure are made the prominent features; the compound arches are distributed to their props; the vaults are supported by ribs; the ribs by vaulting shafts; the upright meeting of the end and side is allowed to guide the neighbouring members; finally the general authority of vertical lines is allowed; the structure is distributed into compartments according to such lines, each of these being symmetrical in itself. The continuity of upright lines being established, the different planes of decoration glide into tracery and feathering, and the Gothic system is complete.

The reader will see how large a portion of this general view is founded upon Mr Willis's admirable work. It is on this account the more necessary for

* *Historical Essay on Architecture*, by the late Thomas Hope, p. 132.

me to state, that whatever agreement may be found between his opinions and those which are offered in the latter part of this volume, all such coincidences are accidental, each work having been written in entire ignorance of the contents of the other. If, indeed, I had become acquainted with Mr Willis's views and nomenclature before I made my Norman tour, I should have possessed a great advantage, as the reader of his book will easily suppose. My descriptions would have been expressed in accordance with his analyses and classifications, and there is not one of the pages of my Notes which would not have been greatly modified. I have written in like ignorance of Mr Hope's Historical Essay on Architecture, which has just appeared. As the establishment of well-understood terms is a material advantage in this, as in other subjects, I hope I may take the liberty of objecting to the expression "Lombard Architecture," which Mr Hope applies to the Romanesque of every part of Europe. His historical grounds for this name are, I conceive, altogether visionary, at any rate when we go beyond the limits of Italy: and the term Romanesque is now so generally understood, and, on the whole, so unobjectionable, that we should certainly lose in attempting to displace it by another, without very strong reasons.

Trinity College, *April* 6, 1835.

ORIGINAL PREFACE

TO THE

ARCHITECTURAL NOTES ON GERMAN CHURCHES.

THE following pages contain the substance of some notes on churches, made during a rapid tour through a part of Germany, with a few remarks suggested by what I there observed. The matter contained in them appears to me to add something to our published information on this subject; and I am persuaded, that by extending and arranging similar observations, we should be led to some interesting and satisfactory views on the progress of ecclesiastical architecture in Germany.

As I see no prospect of my having leisure to pursue the point myself, I place these materials in the hands of the public; with the hope that they may stimulate or assist others, who may take up the subject with better opportunities of doing it justice.

It might perhaps be worth while to publish these memoranda, even if I had no other object than to guide and assist, in some measure, those who may visit Germany with a wish to study the ecclesiastical architecture of the country. I have myself felt how welcome to a traveller so employed, are the

smallest and most imperfect hints of what he is to see. A single phrase, especially from any one whose studies have been architectural, may direct him to objects which will give him the greatest pleasure, or may save him from a tedious journey, ending in the unprofitable magnificence of some Italianizing church. It will, I think, appear from the following pages, that there are abundant sources of interest to the English antiquary in the country through which I travelled, and that the German churches, both from their resemblances and from their differences as compared with our own, may eminently illustrate the subject of church architecture, which has so long been in our country a favorite topic of speculation.

I cannot, however, pretend to deny, that I have mixed up with these indications and statements something of theory and system. This has taken place almost without my having intended it. It so happened, that the churches which came under my notice in the neighbourhood of the Rhine, illustrated very remarkably an opinion which had long appeared to me almost certain, with regard to the introduction of the pointed arch. Some of the modes of building assumed in this theory, which had been only hypothetical suppositions when it was applied to English churches, were found existing as common architectural practices in Germany. It seemed worth while to explain to others this curious coincidence of the theoretical and actual progress of things:

and I was thus led to arrange my observations on German churches in subordination to this view. The consequence has been, that this Essay has partly assumed the shape of a disquisition on the origin of Gothic Architecture, instead of that of a collection of architectural notes, which was the form originally contemplated.

The doctrine which seems to me so probable is, as may be seen in the following pages, that the adoption of the pointed arch in vaulted roofs arose from the requirements of vaulting, and from the necessity of having arches of equal heights with different widths: and it appears moreover that the succession of contrivances to which these circumstances gave birth, is found more completely developed, and probably more ancient, in the German edifices than in our own.

If it be allowed that this account of the origin of the pointed arch is the true one, it will perhaps be granted without much difficulty that, from its original situation in the vaulting, this form of arch was gradually diffused into every other part of the building. This opinion accordingly I am disposed to entertain, though I do not consider it to be susceptible of the same exactness of proof as the former tenet: and I have tried to shew that this was the manner in which the old system of architectue, derived from the classical styles, was finally converted into one of a different and opposite kind.

According to this view, all the other changes which are found in company with the newly-adopted pointed arch, may be considered as the natural manifestations of the new character thus impressed upon art. The features and details of the later architecture were brought out more and more completely, in proportion as the *idea*, or internal principle of unity and harmony in the newer works, became clear and single, like that which had pervaded the buildings of antiquity: the characteristic forms of the one being horizontal, reposing, definite; of the other vertical, aspiring, indefinite*.

* The contrast of character which exists between the Grecian and the Gothic styles is well marked by Mr Rickman. But the various rules and arrangments which he has pointed out as opposite in the two systems, combine in each case to make a common impression on the mind, and flow from some fundamental principle. It is suggested to me by a friend, that this distinctive principle of construction in the Gothic architecture appears to be the admission of oblique pressures, and inclined lines of support. In Grecian architecture the whole edifice consists of horizontal masses reposing on vertical props. In Gothic buildings on the contrary, the pointed arch is always to be considered as formed by two sides leaning against each other at top, and pressing outward at their lower ends. The eye recognizes this statical condition in the leading lines of the edifice, and requires the details to conform to it. We have thus in the Grecian buildings nothing but rectangular forms and spaces: horizontal lines with vertical ones subordinate to them. The pediment is one mass with its horizontal cornice, and does not violate this rule. Arches, when they occur, are either subordinate parts, or mark the transition style, in which the integrity of the principle is no longer preserved. In Gothic works, on the other hand, the arch is an indispensable and governing feature: it has pillars to support its ver-

It does not appear that the degree of attention which the circumstance so well deserves, has yet been given to the extraordinary uniformity of one particular style of Gothic architecture, as it is found over a large part of Europe. The style to which I refer, belongs to that which Mr Rickman has called "The Decorated*," in its earlier form, and with a prevalence of circular tracery. The cathedral

tical, and buttresses to resist its lateral pressure: its summit may be carried upwards indefinitely by the joint thrust of its two sides. All the parts agree in this character of infinite upward extension, with an inclination or flexure to allow of their meeting at top; and thus obviously require and depend on pressures acting obliquely.

* Mr Rickman's terms "Early English," "Decorated," "Perpendicular" architecture, have been objected to. It is a sufficient reason for continuing to employ these words, that they have been so much more accurately defined and discriminated than any other terms of classification. But I conceive that some of the objections which have been raised against these names, have arisen from not attending precisely to the views with which they were imposed. They were apparently intended to distinguish each style from the *preceding* one: and for this purpose they are significant enough. The *Decorated* differs principally from the Early English in exhibiting a greater degree of decoration: the *Perpendicular* varies from the later Decorated mainly in having certain perpendicular members, mullions, which in the Decorated are not perpendicular throughout. And the term *Rectilinear*, which has been suggested, would not apparently be an advantageous substitute for Perpendicular; for the mullions, the only members to which the description applies distinctively, are rectilinear only so far as they are perpendicular. The term "Early English" have *accidentally* a peculiar propriety, inasmuch as this style is found almost exclusively in England: at least it does not occur in Germany.

of Cologne may be taken as the great type or exemplar of this style; it corresponds pretty nearly in character with such English buildings as the east end of Lincoln cathedral, the chapter-house and nave of York, the nave of Exeter. St Ouen at Rouen, the choir at Amiens, are French examples. Germany and the Low Countries abouud with them: along with Cologne we may mention Altenburg, Oppenheim, Strasburg. This mode of architecture seems, in fact, to have occupied almost the whole of Europe, at least north of the Alps, with a singular identity of spirit and character; and with a very remarkable uniformity in subordinate members, and even in minute details. In different countries it succeeded, apparently in different manners, the previous architecture which had been formed by an imperfect imitation of Roman models: and in each case, when the architects have entirely emancipated themselves from the forms of this degraded Roman, they fall into the same new style; which thus seems to afford, in each country, a goal and resting place after a period of progression and change.

In England, indeed, the case was somewhat peculiar. We possess a style, the "Early English" of Mr Rickman, preceding that Decorated to which we have ascribed this European diffusion; and this style may be considered as retaining very few traces of the Roman or Romanesque character. It may be said that with us the Gothic system was fully es-

tablished when this style had become universal. Though fully established, however, the new character was not thus completely matured. The differences between this English architecture and the Complete Gothic* of the Continent are clearly marked; and it is obvious that the additional changes introduced in the latter are such as to present a still further developement of the Gothic principles. The abundant use of window-tracery in the latter case, compared with its entire absence in the former, is a sufficiently broad distinction; and besides this difference, the modes of clustering the shafts and mouldings, and of forming the buttresses and windows, are limited with a sort of severity and monotony in the Early English style, which, in the continental edifices of this, and the English edifices of the next period, is exchanged for a freer, more flexible, and more fertile rule.

It seems to me a most curious fact, that the English architects should have gone by a path of their own to the consummation of Gothic architecture, and should on the road have discovered a style, full of beauty and unity, and quite finished in itself, which escaped their German brother-artists. It will, I think, be proved that this is the case.

* What is here said will shew in what sense I have, in the following pages, used the phrase "Complete Gothic." In Germany it designates the Decorated style, because there they have no previous fully developed Gothic: but in England it includes both the Early English and the Decorated.

by any one who examines the German churches. Those of them which belong to the steps of the transition from the Roman manner to that of Cologne, have nowhere a character clear and independent, and distinct from either of those. They differ by gradations of more or less, by changes of one part or another, the style advancing over the interval without apparently finding any intermediate position of equilibrium. For the sake of collecting into one view the phenomena of this transition, and of noting local peculiarities, I have given an enumeration of the characters of *Early German* architecture. But by this term I designate, not a single and definite style like the *Early English* of Salisbury and Lincoln, but the collection of all the forms which occur after the great change had begun, and before it was completed; from the just-wavering Romanesque of Mentz or Worms, to the multiplied but not quite Gothic elements of Limburg and Gelnhausen.

I fear that some of my readers may expect to find in the following pages more information than I have given, concerning the dates of particular buildings, or the exact chronology of the different styles of architecture. I am obliged to abstain, at present, from entering directly upon this field. I am well aware that such discussions might be more interesting than description and theory can hope to be; and it is undeniable that those enquiries are

very essential to complete our knowledge of architectural history. But strong reasons withhold my pen from such topics. The unavoidable length to which these antiquarian lucubrations spread, and the quantity of time and learning which they require, may excuse their absence from a small and subsidiary essay like the present one: and besides this consideration, there seems to be an advantage in studying separately the two things which we are afterwards to compare;—the differences of style, and the differences of date. If there really be any consistency and uniformity in the several buildings of the same epoch, we ought to be able to detect this agreement by examining the buildings alone: and when we are satisfied of this common character, we shall know what problem we have to solve in investigating *when* and *how* these epochs followed each other. We have to compare the *internal* evidence of derivation or succession with the *external* evidence of time; and what I have here contributed, is intended to illustrate the former term of this comparison.

To tell the truth, the difficulties of the historical branch of the enquiry are sufficient to deter any one from engaging himself hastily in its perplexities. The paucity and indistinctness of the notices of the erection of early buildings; the difficulty of identifying those described with those that still exist; the confusion of works protracted, sus-

pended, built in imitation of others, or in accommodation to them; the alternation of destructions and reparations;—all the chances that can happen to edifices or to authors, combine to unsettle the faith of the architectural antiquary. And the lesson thus taught us seems to be, that though we are to examine the history of particular buildings as carefully as we possibly can, we are not to give to any one of them too great a weight in determining our architectural chronology; but to take rather the age which is collectively inferred from many resembling churches.

If we reject this maxim, we may be left in no small embarrassment; and this, in fact, seems to have befallen the architectural enquirers of modern times; as, for instance, in the case of Coutances. The cathedral of Coutances in Normandy is, for the most part, in a style which has a great resemblance to our Early English, and appears to be not less advanced than our good buildings of that class. Its towers have tall pointed windows, divided into two lights by single or double slender shafts; they have clustered shafts at their corners, and octagonal turrets, also decorated with shafts, and finished with a pyramid of stone. The interior in like manner has throughout pointed arches, abundance of small roll mouldings, slender shafts with capitals of upright leaves, variously clustered, grouped, and supported by corbels; the profiles of piers and of mouldings, the

vaulting, the triforium balustrade, the clerestory windows, are all in the same style. In short the cathedral is decidedly Early Gothic, with few or no traces of Romanesque or Norman. This Early Gothic, or, as we term it, Early English style, is by the best authorities held to have made its appearance among us about 1189; and it has been commonly believed, that the generality of churches in France agree pretty well with this English epoch. But if we receive the date which the best evidence seems to fix for Coutances, we shall have the new style fully developed in Normandy a century and a half too early for this doctrine. M. Gerville, in the first volume of the Memoirs of the Academy of Antiquaries of Normandy, has endeavoured to shew that the church in question was built and dedicated before the year 1056; and he has offered evidence better than can generally be had in such cases, to prove that the building, of which the Monkish chronicler gives us this account, was not replaced by another at a time more consistent with the received theory. This case is important, because the anomaly at Coutances is not the pointed arch only, which may probably be produced of as early a date in other instances, but the whole style of the building, which according to M. Gerville's view is an anticipation by 130 years, of our architecture.

There appears to be a case in Germany almost as rebellious as Coutances to established opinions,

in the cathedral of Bamberg. This church is an instance of what I have called Early German architecture. It has pointed pier arches, and pointed vaulting; the piers have slender shafts attached, the mouldings are small rolls; there are clustered and banded shafts with capitals of upright foliage; a polygonal west apse, vaulted with very acute cells, and many similar features. The German antiquaries would agree very nearly with our English ones, in attributing this building, from the evidence of its style, to a period somewhere about the middle of the 12th century. But it seems, that so far as the external evidence goes, we must take a date considerably earlier. The foundation of the bishopric of Bamberg by the emperor Henry II. in 1007, is an event which occupies a prominent place in German history; and in connection with this occurence, we find that the cathedral which had been already begun, was dedicated in 1012. Bishop Otto, who held the See from 1104 to 1130, is stated to have rebuilt the west end, which had suffered by a fire; and accordingly there are in this part the features of a style somewhat later than that of the eastern choir.

In the same manner the church of St George at Limburg on the Lahn, which shews a still more clear approximation to the Gothic, is said to have been finished in 1058. It is exceedingly difficult to reconcile such statements with the character of

buildings which are known to belong to dates approaching these.

The succession of the earlier style seems to be preserved unbroken in existing edifices. Spires, Mentz and Worms, are spoken of in the succeeding pages as three great examples of the Romanesque; and the greater part of these mighty edifices is clearly and altogether different from the succeeding style. Of these buildings the dates are said to be historically known. Spires was founded by Conrad II. in 1030, and finished in 1061. The east end of Worms is earlier still, and is of the time of Henry II. (who died 1024). The oldest part of Mentz is said to be of the date of Archbishop Willigis, between 978 and 1009.

These buildings, except Spires, have pointed arches in the vaulting, but all the other arches and openings are round, and the members altogether Romanesque. Other remains in Germany enable us to pursue still further back the Romanesque architecture. St Mary Capitoline at Cologne is said to be incontestably of the ninth century: the chapel at Lorch, so eminently Roman in its character, is attributed to the same age; and if we include Italian buildings in our researches, there will probably be no difficulty in tracing the gradations of this achitecture from the classical times, to the period when the rudiments of the newer style begin to prevail.

But if we descend in the order of time, it seems to be a much harder task to determine the epoch and progress of the transition from the Romanesque to the Gothic. It does not appear that the dates of the transition churches of Germany are generally known there; even buildings of considerable splendor belonging to this class, as Gelnhausen, Andernach, Boppart, are dated by writers according to internal evidence only: and the cases where we have other testimony, as Bamberg and Limburg, serve rather to make the matter more obscure. We may however hope for much light from the spirit of research and interest on this subject, which appears at present to be so extensively and actively at work in the neighbourhood of many of these edifices.

If we descend still further, we find ourselves among buildings of which the date is somewhat more certain: and the period of the full developement of the Gothic style may perhaps be fixed with some accuracy. And it would appear, that this style in Germany belongs to a time somewhat earlier than the *resembling* style in England, though not so early as the earliest *good Gothic* in this country. The same also appears to be the case in France, so far as the investigations of Dr Whittington and others have gone. If we take the dates of the most conspicuous examples of Early Gothic buildings, we find them as follows. The *Early English* of Salisbury and of the south transept of York

belongs to about 1220. Westminster, also of good Early English work, was begun in 1245, by Henry III. The *Decorated* Architecture of Germany treads close on the heels of this. Cologne was begun in 1248: the front of Strasburg built in 1276. The resembling examples in our own country are but a little later. The presbytery of Lincoln is of 1282, retaining much of the Early English in its character. The chapter-house of York, and the nave of Exeter come in later, between 1291 and 1330: the chapter-house of Wells between 1293 and 1302. Oppenheim was built between 1262 and 1317, and is of a more advanced character than our English buildings of that date. The window-tracery is of the flowing kind; the walls are covered with pannelling and feathering; and their remarkably small thickness (not more than 18 inches) is supported by rich and deep buttresses with crocketting, &c. The nave of York has flowing tracery, and is said to be after 1320. Amiens, which is generally compared with Salisbury, being nearly of the same date, is incontestably more advanced in style, having window-tracery, triangular canopies, crockets, pannelling, &c. Indeed it is not difficult to conceive why the English architects did not adopt, so soon as the Germans and French, all the Decorated features; for we may easily imagine that they would abandon with regret the beautiful simplicity and

sobriety of the Early English, even for the rich and elegant complexity of the succeeding style.

It will be a matter of great interest to obtain hereafter, as it may be hoped we shall, a more accurate and extensive comparison of the synchronisms of Gothic architecture in different parts of Europe. Another curious enquiry which as yet has not been critically pursued, is, over what geographical extent of countries the genuine Gothic style prevailed.

It has no doubt been widely diffused, but probably has not so completely covered the face of Europe as is often imagined. So long indeed as *Gothic* was synonymous with *barbarous*, and was applied to all architecture which deviated from the classical rule and spirit, it was easy to find Gothic in every European country, and even in other quarters of the globe. But if we use the term Gothic in a definite sense, to designate a kind of architecture which has its principle of unity no less than the Classical, and of which those only are genuine features which we find in good examples constructed upon this principle, we shall learn to restrict the local extent of this style within narrower limits. These limits I hope will hereafter be defined by those who give their attention to this branch of art. Going eastward, I know that the style extends as far as Magdeburg in the north, and Vienna in the south of Germany. On the west, it is said that

there are in Spain good cathedrals of Gothic architecture. Those at Segovia, Toledo and Burgos are particularly mentioned; and I should think it likely that the last of these three for instance, is of proper Gothic character, though hardly of the pure style of the best time, since it was built by German architects, John of Cologne and his son Simon, after the year 1442. The Moorish architecture of Spain, from which some writers have endeavoured to derive the Gothic, is certainly not Gothic, and is connected with that style only by slight and superficial resemblances.

I am not so much acquainted with Italy as to be able to pronounce whether the true Gothic found its way over the Alps. So far as one can judge by barely passing to the Italian side of that barrier, the tramontane architecture was never fairly established in the country. The great cathedrals of the middle ages in the Italian cities, exhibit a most curious and peculiar Romanesque, but this did not, as in the more northern regions, transform itself into a new and independent style. It is indeed easy to imagine that the spirit of the classical ages never ceased to haunt the efforts of Italian art: and that whatever propensities did arise towards a set of forms different from the antique, were perpetually interrupted in their developement by the surviving models and maxims of the ancient times. The tendencies opposite to the Roman system, in-

stead of being freely and energetically pursued till the result was another system, were checked and thwarted as fast as they appeared; not eradicated indeed, but blighted in their bud. Before the Italian artists had fully seized the principles which had been so well followed out in Germany, these principles were again overturned by the revival of classical architecture along with classical literature*.

The cathedral of Milan is so celebrated as a grand Gothic edifice†, that I shall perhaps be excused, if I speak of this church in particular. I regret to have to dissent where others admire, but I am obliged to say, that Milan has no claim to be considered as a good example of Gothic architecture. In order to possess excellence in this, as in any other style, a work must have the requisite parts clearly exhibited and well-proportioned. Now the principal parts of the interior of a cathedral are, as is explained in the following Essay, the piers, the pier-arches, the triforium, the clerestory, and the vaulting. At Milan, scarcely one of these members can receive a critical approbation. The *piers* are of imposing bulk and height, but lose

* I am happy to be able now to refer to Mr Willis's admirable characterization of Italian Gothic. (Note, 2d Ed.)

† Madame de Stael, whose words may be taken as an expression of the popular admiration, says in her Corinne, that this edifice is the master-piece of Gothic art in Italy, as St Peter's is of Roman.

much of their due effect from having no proper capitals: and the group of niches which crowns each pier, displacing the capital, ruins entirely the relation of these supports to the rest of the edifice. The *pier-arches*, thus cut off from their pillars, and thrown into obscurity, hardly catch the eye. There is not any attempt at a *triforium*: and the *clerestory* also is quite frittered away by being cut into two portions on each side. For there are five aisles, and of these the center one is higher than the two immediately adjacent, and these again than the exterior aisles, the clear elevation of each higher part being pierced by small windows. In this way a single clerestory wall of sufficient elevation is replaced by two smaller descents; and thus this member loses all its characteristic appearance. Lastly, the *vaulting* is not striking as an architectural work, though very brilliant as to its painted decoration. If we pass from the interior to the exterior, we shall still find a defect of consistent architectural principle. The west front, though fringed with pinnacles, is not formed of decided Gothic features: the sloping lines of the magnificent flying buttresses, strongly marked and often repeated, become the leading lines of the building, because they are not stopped and controlled by commanding masses of vertical pinnacles at their lower ends, as is the case at Cologne, and other genuine Gothic churches which possess such members. Finally, even the

forest of pinnacles which crowns this gorgeous edifice fails to give an upward character to its outline: for each of these pinnacles is a well-executed statue; and though such ornaments, *in subordination* to other upright masses, are quite consistent with the Gothic spirit, they are felt, in the present instance, to transgress this condition: the numerical strength of this marble army makes it the governing power; the statuary domineers over the architecture; and we collect, out of all this host of personages and attitudes, no definite lines and regular forms, such as alone can give architectural effect.

If the reader will refer to pages 47 and 48, where I have endeavoured to draw the contrast between the characters of Romanesque and of Gothic architecture, he will see how impossible it is, consistently with the principles there enunciated, to give the name of genuine Gothic architecture to that of Milan; although the passage was written with no reference to that particular example, and expressed merely a general impression collected from a comparison of many buildings. In Milan, several of "the mouldings, cornices, and capitals" *have* "classical forms*;" in various parts, for instance in

* I speak of course of the part which aspires to the character of Gothic architecture, according to the statement in the inscription on the front itself; not of the doors and windows, parts of the former front of Italian architecture, which were

the front, "rectangular surfaces, pilasters and entablatures" do *not* disappear; the enrichments are introduced "by sculpturing surfaces," *rather than* "by repeating and multiplying the component parts," and there is *not* "a predominance of vertical lines and members."

If we would employ the term *barbarous* with any significance, it is not to be applied, I conceive, to one style of art merely because it differs from another. A Gothic building is no more barbarous than a Grecian one, if the ideas which govern its forms be fully understood and executed; but those attempts rather are to be called barbarous which imitate the features of good models, and which, not catching the principle of the art; exhibit such parts incongruously combined and imperfectly developed. In writing Greek, an Anglicism is a barbarism:

spared "on account of the elegance of the workmanship," and remain encased in the present façade. I insert here the inscription to which I refer.

TEMPLI . FRONTEM
GRÆCO . OPERE . INCHOATAM
GOTHICO
AD . MOLIS . UNIVERSÆ
CONSENSUM
INSTAURANDAM . PERFICIENDAM
OSTIORUM . LUMINUM
ANTEPAGMENTIS
OB . ARTIFICII . ELEGANTIAM
INTACTIS
XX . VIRI . ÆDIFICATIONI
PROCURANDÆ . DECREVERUNT
ANNO . MDCCLXXXX.

but we shall not now be willing to allow English to be barbarous because it is not Greek; and a mixture of the two is equally barbarous whether it pretends to be one or the other.

When the questions have been investigated which concern the formation and diffusion of the general European Gothic, there is another enquiry which remains to be pursued in order to complete the history of the art, and which offers interesting comparisons and curious details. In the same manner in which different and distant nations of Europe converged by different paths to a sort of central idea of Gothic, it appears that they afterwards diverged, and formed out of this common style various degenerate kinds of architecture different in different countries. In all the cases, the nature of the change was, that the ornaments become more profuse and universally applied, the small parts more multiplied and more like one another; the large features and portions less marked and dominant. Of the derivatives of the Gothic which thus appeared after it had lost something of its original purity, perhaps the most beautiful and the least degenerate is that which we have in England, the Perpendicular or *Tudor* architecture. In some cases indeed, this style possesses so much boldness and breadth of parts, combined with its fulness and richness of detail, as to be scarcely inferior to any form of Gothic architecture. The

style of degraded Gothic which occurs in France, has been distinguished by the term *Burgundian**. (See *Quarterly Review* for April, 1821, p. 126.) It has great community of character, though considerable difference of detail when compared with our Tudor architecture. It seems to be marked by a peculiar form of arch, the elliptical or flat-topped, as the Tudor style is characterized by the four-centered arch. In the Netherlands we have another form of the decline of the Gothic, which we may call the *Belgian* style, in the magnificent town-houses of Ghent, Louvain, &c., of which the architecture, though very celebrated, has not, so far as I know, been critically examined. It appears in like manner, that the edifices of the period corresponding to this in Germany have their peculiarities, and these, like the last, have not, I believe, been selected and brought together.

All these forms of architecture, and perhaps others which are requisite to complete the examination, would be interesting subjects of research. They were the medium through which the art became advantageously applicable to domestic and civil, as well as to religious and warlike, purposes. With these styles, properly speaking, commence the magnificence of streets and cities, the beauty and splendour of the houses of the great.

* In a succeeding part of this volume it is described under the name *Flamboyant*, which the French antiquaries have given it. (Note, 2d Ed.)

Whether or not what I have said may produce conviction on speculative points, on subjects where language is necessarily vague and demonstration impossible, I hope that those parts of the following work which are descriptive will be found sufficiently intelligible by those who prefer facts to theories, that is, particular facts to general ones. And I trust that the classifications there employed are only such as may give clearness and connexion to the descriptions. Descriptions in detail without some classification are scarcely readable; and it is only by comparison of resemblances and differences that our observations become either instructive or interesting. I have therefore attempted to refer buildings to their places in the order of art, instead of giving from my note book a succession of extracts relating to particular churches. The style which I have more especially endeavoured to characterize, the Transition or Early German, has not yet, so far as I know, received much distinct attention. Dr Moller, however, in the course of his valuable *Denkmaehler,* has recently given us excellent representations of the cathedral at Limburg on the Lahn, which is a very admirable specimen of this kind; and has noticed the intermediate and transition place which this edifice seems to occupy in the developement of the German style.

Though, in the second chapter of the ensuing Essay, I have professed to describe only the Transition style, it will be found, I believe, that I

have also mentioned most of the characters of the Romanesque, in the way either of contrast or parallel. Of the complete Gothic I have said less, inasmuch as my object is not to give a complete account of church architecture, but to point out what is peculiar to the German churches, and illustrative of the formation of the Gothic style.

In architectural description I have ventured to employ a few new phrases: or rather, I have fixed and limited the meaning of some of the phrases which I have used, with a view to their being employed steadily and precisely for the future. I hope the courteous reader will not consider this to be a criminal assumption of philological power. It is scarcely possible to describe new features without thus much of innovation, or to describe any thing distinctly without thus much of technicality. Mr Rickman has shown, that by the careful use of terms well selected and previously defined, language may convey almost as exact and complete an idea of a building as can be got from the reality or the pencil: but in order to do this with the greatest advantage, our architectural vocabulary should be much extended. We may learn from the descriptive sciences, as for instance Botany, how much may be taught by means of a copious and scientific terminology; and architects are already in possession of a very numerous list of terms of art which refer to the Classical Orders; so full, indeed,

that there could scarcely ever be much difficulty in describing a building belonging to that style. To establish a complete language for Gothic architecture likewise, is a proceeding which might not be beyond the jurisdiction of our eminent architectural authorities; but such a language would require to be illustrated by abundant drawings and references. I have not pretended to invent or define any words except such as I had occasion for in my own descriptions*.

Most persons who attend to ecclesiastical architecture are in the habit, more or less, of making memoranda of noticeable churches which they see. It seems likely that this task might be executed more completely and expeditiously, by following a fixed plan in the selection and arrangement of the parts described. I should even conceive that when a person has to make notes upon several churches, it might be advantageous to prepare a regular skeleton-form or tabular schedule, in which the same blanks should be filled up according to the peculiarities of each instance; and the register thus form-

* Among the liberties taken with language for which I ought to apologize, perhaps I should mention the employment of the word *aisle* for the central space (nave or choir), as well as for the lateral spaces, of a building separated by longitudinal rows of pillars. I believe I am far from being the introducer of this phraseology; and though etymology is, I fear, against me in the use of this word, I can find no other which applies to the three spaces of which it was necessary for me to speak in common.

ed of the members of our churches, would probably be more secure from omission and more easy of comparison, than accounts drawn up at random: at any rate this mode of proceeding, though it might be thought needlessly formal, would make the persons who agreed together to use it, more intelligible to one another. I have not ventured to construct such a skeleton church; but I have recommended what appears to me to be the best order to follow in dissecting any proposed example, as may be seen in Chap. III.

In taking notes of vaulting, I found that the form of the construction could often be expressed both more briefly and more clearly by means of a few lines of rude drawing, than by words; and the marks which I thus employed gradually assumed the character of systematic symbols. Since these are few and simple, and, as it appears to me, easily understood, I have given them with their explanation for the benefit of any architect who may be willing to make a trial of such aid. Besides these marks, which can hardly be called drawing, no skill in drawing is absolutely necessary for the architectural observer, though such skill may of course be very valuable when it exists. Some of the most desirable drawings may be made sufficiently well without the draftsman's eye and hand; for example, profiles of mouldings, which are very important elements, and should be copied; since those

of Gothic work cannot be exactly conveyed by means of any terms which have yet obtained reception among architects.

In spite of all that I have said in commendation of verbal descriptions in architecture, I am well aware that most of my readers would prefer receiving information from drawings of buildings; and for their sakes I regret that my plates are so few and so humble. There exist, however, several valuable publications with good plates on the subject of German architecture, and more will probably appear in a short time. Dr Moller's work (*Denkmaehler der Deutschen Baukunst*) already contains excellent specimens of every style of German buildings, and offers additional interest and beauty in each new number: Mr Müller's work on Oppenheim, mentioned in the following pages, is of almost unequalled splendour of excution: Dr Boisserée's magnificent engravings of the cathedral at Cologne are already known and admired in this country. Besides these, a work on the architecture of the Upper Rhine is publishing at Freyburg in the Brisgau; and I believe some others have appeared which I have not seen. With the spirit which now prevails among Germans on such subjects, we may expect them still further to add to this stock of such representations, as they certainly have still abundant materials for their labours. If Dr Boisserée, after the completion of his work on the cathedral of Cologne, should execute

his design of giving to the world the other churches of that city and neighbourhood, it will be an invaluable contribution to these studies*. Other works, which we may perhaps hope to see, are—an adequate description of the very curious and ancient abbey church at Laach:—a comparative account of the three great Romanesque cathedrals of Mentz, Spires and Worms, a work which would have a singular interest:—a worthy description of the very beautiful cathedral of Bamberg:—and representations of the many admirable and important specimens of architecture which are to be found in the city and neighbourhood of Nuremburg. Such works as these will enable men to speculate with profit and pleasure on the history and character of German architecture. And when we consider the great learning and diligent observation of the German antiquarians; their pleasure in the beauties of art, and their reverence for the spirit of antiquity; we may expect that they will ere long illustrate as it deserves this portion of the history of their land.

I cannot here part with my reader, without apologizing for the incompleteness, perhaps the inaccuracy, of the following Notes. They were the results of a hasty tour of a very few months, collected originally without any view to publication; and are now printed in order that the information, however tri-

* This valuable work on the Churches of the Rhine has recently reached this country. (Note, 2d Ed.)

fling, being once collected, may not immediately be lost. I shall consider myself well rewarded, if they assist any one to observe more thoroughly, or induce him to contribute any thing more complete.

CHAPTER I.

OF THE CAUSES OF POINTED ARCHITECTURE.

SECT. 1. *Of the Romanesque and Gothic Styles.*

THE ancient churches of Europe offer to us two styles of architecture, between which, when we consider them in their complete developement, the difference is very strongly marked.

During the first thousand years of the Christian period, religious edifices were built in the *former* of these two styles. Its characters are a more or less close imitation of the features of Roman architecture. The arches are round; are supported on pillars retaining traces of the classical proportions; the pilasters, cornices and entablatures have a correspondence and similarity with those of classical architecture; there is a prevalence of rectangular faces and square-edged projections; the openings in walls are small, and subordinate to the surfaces in which they occur; the members of the architecture are massive and heavy; very limited in kind and repetition; the enrichments being introduced rather by sculpturing surfaces, than by multiplying and extending the component parts.

There is in this style a predominance of *horizontal* lines, or at least no predominance and prolongation of vertical ones. For instance, the pillars are not prolonged in corresponding mouldings along the arches; the walls have no prominent buttresses, and are generally terminated by a strong horizontal tablet or cornice. This style may conveniently be designated by the term ROMANESQUE. The appellation has been proposed by Mr Gunn, as implying a corrupted imitation of the Roman architecture: and though the etymological analogy according to which the word is formed, is perhaps not one of extensive prevalence, the expression seems less liable to objection than any other which has been used, and has the advantage of a close correspondence with the word *Romane*, which has of late been commonly employed by the French antiquarians to express the same style. This same kind of architecture, or perhaps particular modifications of it, have been by various persons termed Saxon, Norman, Lombard, Byzantine, &c. All these names imply suppositions with regard to the history of this architecture which it might be difficult to substantiate; and would, moreover, in most cases not be understood to describe the style in that generality which we learn to attribute to it, by finding it, with some variations according to time and place, diffused over the whole face of Europe.

The *second* style of which we have spoken, made its appearance in the early centuries of the second thousand years of the Christian world. It is characterized by the pointed arch; by pillars which are extended so as to lose all trace of classical proportions; by shafts which are placed side by side, often with different thicknesses, and are variously clustered and combined. Its mouldings, cornices and capitals, have no longer the classical shapes and members; square edges, rectangular surfaces, pilasters, and entablatures disappear; the elements of building become slender, detached, repeated and multiplied; they assume forms implying flexure and ramification. The openings become the principal part of the wall, and the other portions are subordinate to these. The universal tendency is to the predominance and prolongation of *vertical* lines; for instance, in the interior, by continuing the shafts in the arch-mouldings; on the exterior, by employing buttresses of strong projection, which shoot upwards through the line of parapet, and terminate in pinnacles.

All over Europe this style is commonly termed GOTHIC; and though the name has often been objected to, it seems to be not only convenient from being so well understood, but also by no means inappropriate with regard to the associations which it implies. That the Goths as a particular people had nothing to do with the establishment of the

style in question, is so generally notorious, that there can be no fear of any one being, in that respect, misled by the term. The notion which suggested the use of the word was manifestly the perception, that the style under consideration was a complete deviation from, and contrast to, the whole principle and spirit of Roman architecture; and that this innovation and antithesis were connected with the course which taste and art took among the nations who overthrew the Roman empire, and established themselves on its ruins. And this is so far a true feeling of the origin and character of the new architecture, that we may consent to accept the word by which it has been thus designated, without being disturbed by the reflexion that those who first imposed this name, considered it as conveying the reproach of barbarism. We, indeed, should take a very different view from theirs of the merit and beauty of the new style. We should maintain, that in adopting forms and laws which are the reverse of the ancient ones, it introduced new principles as fixed and true, as full of unity and harmony, as those of the previous system; that these principles were applied with as extensive a command of science and skill, as great a power of overcoming the difficulties and effecting the ends of the art, as had ever been attained by Greek or Roman artists; and that they gave birth to monuments as striking, of as august and ele-

vated a character, as any of which we can trace the existence in the ancient world. Our present business however is not with the merits, but the history, of the art.

The question of the causes of the transition from one of these styles to the other has been much agitated during the last half century. In the course of these discussions "the origin of the pointed arch" has generally been put forwards as the most important branch of the enquiry; a natural result of the common disposition to reduce a problem to the most definite and simple form. This is however an imperfect statement of the real question; for the pointed arch, far from being the single novelty in that change in architecture to which reference is made, is but one among a vast number of peculiarities which, taken altogether, make up the newer style: and this style would continue to exhibit a contrast with the one which preceded it, even if the round arch were used instead of the pointed one, as in some instances is actually the case.

Still, however, if we could shew with probability the reason which produced the prevalence of the pointed arch, this would be an important step in the history of the architectural revolution, and might throw much light on other parts of this history. Now we can point out a cause, which not only might possibly, but which must almost ne-

cessarily, have given rise to the general use of such arches; and it is one object of this Essay to illustrate this necessity, and the manner in which it affected ecclesiastical buildings.

The cause to which I refer, is the mode of VAULTING churches; and the instances in which I have been enabled to trace its operation, are the churches in the neighbourhood of the Rhine principally, and also in some other parts of the Continent.

SECT. 2. *Of the Origin of pointed Vaulting.*

The combination of vaults in the roof of a church is not easy to represent by figures, and hence there is some difficulty in conveying an exact conception of the contrivances which I have to describe. It may, however, perhaps be understood in the following manner.

In a vaulted church, we have in general one vault which runs longitudinally along the church; and the upper windows open into the sides of this longitudinal vault by shorter vaulted spaces, which, running perpendicularly to the length of the building, may be called *transverse* vaults. And the intersection of longitudinal and transverse vaults in this, and similar situations, would naturally lead to the introduction of pointed arches.

To make this evident, let us consider a single *compartment* of the church, that is, a portion of

the center aisle (nave or choir) consisting of one arch, or one window in length, and of the breadth of the center aisle for its breadth. If this length and breadth be equal, such a compartment can be exactly vaulted over by means of semi-circular vaults intersecting each other, and strengthened by semi-circular arches, as is represented in Fig. 1. Each vault may be built exactly as if it were single; the two vaults will meet in an edge or groin of a regular elliptical form, lying diagonal-wise across the compartment, and the lines running along the top of each vault will be horizontal lines. This kind of vaulting was practised by the Romans, and for the sake of brevity I shall call it *Roman Vaulting*.

But the case will be different, if we suppose this equality of length and breadth no longer to subsist: if, for instance, the breadth of the window-space be smaller than the breadth of the aisle, as in Fig. 2. If, now, each of these breadths be vaulted over by semi-circular vaults, as in that figure, the transverse vault will not reach to the top of the longitudinal one, but will cut it obliquely in an irregular curve: the line running across the top from one window to its opposite, will be a broken line: the forms will be of some complexity to calculate, and can only be executed by great skill, and with much difficulty. This kind of vaulting is to be seen in modern buildings, for instance, in

St Paul's in London, but may be supposed not to have occurred as practicable to the architects of the middle ages.

If in this case, however, we suppose that the narrower space, (the window) is covered with a *pointed* arch *of the same height* as the semi-circle, and with a vault corresponding to this arch, the forms of the vaulting become much easier both to determine and to execute. The lines running along the top, both of the longitudinal and of the transverse vaults, will again be continuous horizontal lines; and the edges formed by the intersection of the two vaults will follow nearly, but not exactly, the diagonals of the compartment. See Fig. 3.

But if instead of supposing one of the vaults only to have a pointed arch for its form, we suppose the longitudinal and transverse arches to be both pointed, and of the same height (which is always possible, whatever be the disproportion of the breadths) the arrangement will become still more convenient. This is represented in Fig. 4. All the divisions of the roof will be of similar forms, and capable of being planned and executed in a similar manner: and the edge or intersection of the two vaults will be more nearly than before in the direction of the diagonal of the compartment, and will also be nearly in the shape of a pointed arch, resembling the original longitudinal and transverse arches.

If we erect, upon each diagonal of the compartment, a pointed arch of the same height as the longitudinal and transverse arches, the vault may, by a slight accommodation of the curvatures, be made exactly to fit this arch. This arch, when marked by a projecting band of stone, is called *a diagonal rib:* and this form of vaulting, with transverse and longitudinal pointed arches, and with diagonal ribs, is the most simple and the most prevalent form which occurs after the completion of the architectural revolution.

It is not only that the forms and bearings of the parts in this arrangement are more easy and simple than in any other which suggests itself, capable of answering the same ends, but also its strength is more easily secured, and the mechanical construction of the vault much facilitated: the longitudinal, transverse, and diagonal ribs being probably first erected, and then the vaulting parts added, without the necessity of wooden *centering*, covering the whole compartments.

This account is not proposed here as new. It is the theory which Mr Saunders published in 1811, and which he has very ably and ingeniously explained in the 17th volume of the *Archæologia**. In the same volume, Mr Ware appears to be of a similar

* I may venture to observe, however, that the opinion which supposes Canterbury to be the first instance of pointed vaulting, appears to be untenable.

opinion, and the same view, or at least one nearly approaching to it, was taken of the subject by Mr Essex, as appears by Mr Kerrich's statement (*Archæologia*, Vol. XVI. p. 315), and seems to be entertained with more or less distinctness by several continental antiquaries. My object is to illustrate the opinion somewhat further, by considering this part of the construction of a church in connexion with other portions of the edifice: and also to shew the necessity which produced this change shews itself in various buildings in Germany and elsewhere.

It will be observed, that this theory of the origin of pointed arches must be considered as standing upon different ground from other theories which have been proposed, inasmuch as they only shew how the *form* of such an arch *may* have been suggested, not how the *use* of it *must* have become universal. The hypotheses which derive pointed arches from the intersections of branches of trees—or from the pointed form of doorways made by two stones leaning against each other—and even the very favourite opinion which supposes such arches to have originated with the intersecting round-headed arcades of the earlier architecture, must be considered as without value on this account. It is true, that, in these ways pointed arches would occur; and so they would in many other ways; for instance, as has been observed, in proving the first Proposition of Euclid. But this *possible* construction of the

pointed arch affords us no key to its adoption—does not explain to us why it grew into use, *rapidly* as to time; *universally*, as to its application in all members of the building; and *exclusively* as to the final rejection of the round arch previously employed, and of all the other forms, many of which would be as obviously suggested as this form of the pionted arch. Whereas, the theory which I am now to develope, pretends not only to shew how this arch *might* be invented; but that it, or something like it, *must* have been wanted, discovered and employed.

That the adoption of this arch led to the other changes which combined to form the Gothic, is not capable of being proved with the same cogency; but yet we shall, it is hoped, be able to trace a natural and almost necessary influence of this element upon the other parts of the building, which seems to explain better than any other hypothesis the formation of the new style.

It will appear, I think, from what has already been said, that the vaulting of a space of which the length and breadth were different, could only be effected by abandoning the semi-circular arch. The forms which the vaulting assumed when this arch ceased to be exclusively employed, were various. They were, moreover, variously affected by the distribution of the other parts of the building, and I shall consider the consequence and progress of this combination of causes.

Sect. 3. *Of the Aisled Form of Churches.*

A circumstance in the arrangement of Christian Churches which very remarkably influenced the subordinate parts, was their distribution into a center aisle and two side aisles. Some may perhaps be disposed to trace this construction to a remoter origin. Something resembling it is indeed found in the religious edifices of very distant times and countries. The Egyptian temples of Ybsambul and Hermontis are separated by two rows of piers or pillars into three alleys. The division of the central from the lateral spaces by longitudinal rows of pillars, is found also in the Opisthodomos of the Parthenon at Athens, and seems to have been general in the hypæthral temples of the ancients, as for instance in that at Pæstum. In this very ancient temple, indeed, we have another remarkable approximation to the arrangement of a Christian Church, for we find over each of these inner rows another range of smaller pillars, exhibiting a striking resemblance to a clerestory.

Others may consider this form of Christian Churches as directly deduced from that of the Roman basilicæ, many of which are stated to have been applied to religious uses after the legal establishment of Christianity. These buildings consisted of two parallel ranges of covered porticos with an intervening space; and when this intervening space was covered in, obviously formed three aisles.

But, however this form may have originated, being once adopted as the usual construction of churches, it gave rise to many peculiarities, and determined most of the component parts of our ecclesiastical architecture.

The columns which separated the three aisles from each other became the *piers* of the church. These columns almost universally supported arches, which were generally used in the vaulting of the side aisles, and these are the *pier arches* of all aisled churches.

The center aisle was most frequently raised above the side aisles by walls resting upon the pier arches. The central elevated space was then lighted by windows pierced in this wall over the side aisles, and thus we have *clerestory windows.*

The side aisles were mostly vaulted with stone, and had over the stone roof a wooden one sloping upwards towards the clerestory. In this manner, a space necessarily intervenes between the top of the pier arches and the bottom of the clerestory windows. This space, when ornamented in the interior by a range of openings or pannels, became the *triforium.*

These different parts are seen in Fig. 6., which may be considered as the general type or pattern of two compartments of an aisled church*. The parts which have just been mentioned occupy in all com-

* The triforium is here represented only by a blank space in the wall.

plete churches the positions in which they are here drawn; and the differences in the form and decoration of these parts characterize the different successive styles.

But in order to see the whole effect of the triple arrangement, we must consider the manner in which the building was roofed.

SECT. 4. *Of the Kinds of Vaulting employed in Churches.*

Before we describe the combinations of vaults which occur in the roofs of churches, there are two kinds of simple vaults which must be mentioned.

No. 1. The *cylindrical* vault*, resting on the tops of the side walls with its axis in the longitudinal direction of the building. This is a very common and ancient mode of vaulting, but is rarely used to form the roofs of churches. It does not conveniently admit of clerestory windows, and is on that account ill-suited to such edifices. There is, however, one part of many very early churches where it is constantly found, namely, in the roof of the compartment which intervenes between the *apsis*†

* This kind of ceiling is also occasionally called a waggon, barrel, tunnel, or cradle roof.

† The semi-circular or polygonal portion usual at the east end of the choir is so called. The same term is applied to a similar termination at the end of the transept or nave.

of the church and the *crossing** of the transept. This compartment is also generally different from the rest of the church in other respects, and for the sake of compendious reference will be called the *intermediate compartment.* It is covered with a cylindrical vault at St Aposteln, St Martin, St George, and St Mary Capitoline, all of them churches existing, with many others of the most ancient and curious construction, in the very remarkable city of Cologne.

The cylindrical vault is found on a very large scale in ancient buildings. It occurs in many modern churches, of which I may mention St Peter's at Rome. It is not very common in England, but is almost universal in the churches of Cornwall, where each of the three aisles is so roofed.

No. 2. In the ancient churches, the semi-circular east end is the general form, and is covered with a plain *semi-dome:* viz. the half of a hemisphere, smooth and ribless. This domical apsis is usually somewhat lower than the end of the choir to which it is attached; so as on the outside to shew the gable wall of the choir above the semi-circular termination. This semi-circular part has also very uniformly a peculiar open gallery, and other constant arrangements, outside; and the interior construction

* The portion of the building which is over that space in the ground plan where the transept crosses the nave is called the crossing.

of the apse which has just been described is equally constant in the oldest structures. Besides the Cologne churches mentioned in the last paragraph, all of which have this form, we may adduce St Gereon, St Maurice, St Cunibert, St Pantaleon, in the same city; the great cathedrals of Mentz, Spires, and Worms; the great abbies of Laach near Andernach on the Rhine, and Eberbach near Elfeld in the Rheingau; and indeed almost all the churches of pure Romanesque character. Not only the choir, but the side aisles also have frequently this termination eastward; and this construction seems to be the earliest form of the church which we commonly find. This form is also very generally diffused, both in Normandy, and in Germany. To this prevalence Cologne, however, offers an exception. In that city four or five of the most ancient churches, which are formed into a group by their resemblances of style, have a plan in which, instead of this triple eastern apsis, we have apses at the *ends* of the transept, similar to that of the choir.

The combination of a center aisle with the side aisles introduced various methods of vaulting, which may be enumerated as follows:

No. 3. The simplest mode of vaulting *three* aisles is to make them all of the same height and width, the width being that of the pier arches; and to repeat the Roman vaulting for each square compartment thus produced.

This vaulting, with plain semi-circular bands, and no diagonal ribs, is found in many ancient buildings of small size, for instance, in the Ottmar-Capelle in the Burg at Nuremberg, and, with some modification, in the Margareten-Capelle, which is underneath the former chapel. It may be seen on a magnificent scale in the superb cellars of the ancient monastery of Eberbach in the Rheingau. In crypts it is extremely common both in Germany and in England; and in these cases is often repeated for more than three aisles, as at Canterbury, where it extends to five.

This mode of roofing is occasionally used in all the successive styles, the pointed arch being introduced instead of the round one, and the details altered accordingly. The Eucharius-Capelle at Nuremberg exhibits it with a mixture of round and pointed arches, belonging to the transition from one style to another. The Temple Church in London is a beautiful instance of the same arrangement in the style of the early English Gothic. The smaller of the two churches in the monastery of Eberbach just mentioned has a similar disposition, with the details of a still earlier pointed style. The mode of vaulting churches with three aisles of equal height was, however, most practised on a great scale at a considerably later period, when we have very large edifices of this construction, with characters which imply a decline from the best Gothic style. Among many instances, I may mention St Stephen at

Vienna, St Lefrau at Oberwesel, St Stephen at Mentz, the cathedral at Frankfort, St Martin at Landshut. The gigantic height of several churches thus built, their openness and lightness in consequence of the size and distribution of the windows, are circumstances which often make them impressive and imposing, in spite of the defects of their details and execution. They are generally conspicuous externally by an enormous height and breadth of slated or tiled roof, and by the absence of a clerestory.

No. 4. In most churches, however, the center aisle is both higher and wider than the side aisles, and the building then requires a different mode of roofing.

The side aisles, being generally narrow, did not offer any considerable difficulty to the architect. They were built with a breadth nearly equal to the span of the pier arches, and then covered with equal intersecting semi-circular vaults on each compartment, according to the Roman vaulting described in Section 2. They had semi-circular vaulting bands across the aisle between each compartment, and generally had no diagonal ribs. The compartments of the vaults are very frequently more or less *domical** in their form.

* That is, the intersection of the diagonal edges or ribs of each compartment is somewhat higher than the summits of the transverse and longitudinal arches by which the compartment is bounded.

Of the ways of covering the center aisle, the first which I shall mention, is to place a flat wooden roof upon this space. In this case, the roof may rest upon the level tops of the clerestory walls, and we have no occasion for any pillars at all in that part of the edifice. If, however, the wall is faced with pillars or pilasters, these run up to the top of the wall, and have their capitals at the wall-plate, so as to support the beams; whereas, in walls intended for vaulting, the capitals of the vaulting pillars are necessarily much lower, so as to support the vaulting bands; in most instances they are nearly at the level of the bottoms of the clerestory windows.

In Fig. 6. the capitals are considerably below the top of the wall; but if the vault be removed, and a roof placed on the tops of the walls (the wall which is here drawn as imperfect being supposed to be completed to the same height as the opposite one) the capitals would naturally be carried to the summit of the wall.

This method of roofing large spaces seems in England to have been exclusively used during the prevalence of Norman architecture. I know no instance of a large center aisle of an Anglo-Norman building which possesses, or was intended to possess, a stone roof*; and the above-mentioned position of

* It is here asserted, that no building of Norman architecture exists in England with the center aisle covered by original vaulting. It appears that there is an exception to this

the capitals clearly indicates the original design. Thus Peterborough, the nave of Ely, St Peter's at Northampton, Steyning, Romsey, are calculated for flat roofs. In the latter church, even the nave, which is executed in the Early English style, has the same arrangement; probably for the sake of accommodation to the rest. The large buildings of Normandy of the earliest style in that province, have the same disposition; which obtains till we come to the two great Abbayes at Caen.

In Germany, as we shall shortly see, the art of vaulting large spaces seems to have been practised extensively, while in our country it was unknown. At the same time, however, that this was in use, many churches were built for flat roofs. Thus the abbey-church of Limburg on the Haardt, which was founded the same day as the neighbouring *vaulted* cathedral of Spires, is of the flat-roofed kind. Other German churches of the same class which may be

this rule in the case of the Chapel of "the White Tower" in the Tower of London. This Chapel has side aisles separated by massive Norman piers, and covered with Roman vaulting; but the center space is vaulted with a *cylindrical* stone vault, resting on the walls of the triforium; the eastern termination being coved so as to accommodate the form to the semi-circular apsis of the chapel. The upper windows let in the light through the triforium arches. A room below the Chapel is vaulted in the same manner, the spaces under the side aisles being, in this story, solid wall.

This tower is said to have been built by Gundulph, bishop of Rochester, in, or soon after, the year 1078.

noticed, are Schwarzach near Rastadt; the Schotten-Kirche, the Obermünster Kirche, and the church of St Emmeran, at Ratisbon; St Burckardus at Würzburg; the church of Paulinerzelle in Thuringia; the old church at Schaffhausen in Switzerland; the churches at Ditkirchen on the Lahn; at Ems on the same river; the ancient church on the Johannisberg; and, finally, St Pantaleon and St Cecilia at Cologne. In Italy this construction is still more common: the art of vaulting churches in stone in early times having been in that country far less practised than in Germany, if at all. Thus, St Zeno at Verona and most of the old churches at Rome have flat roofs. In many of these Italian churches, the side aisles likewise are flat-roofed, which is the case also at Paulinerzelle: but in general, both in Germany and England, the side aisles, in such cases, are vaulted with Roman vaulting.

All the churches above-mentioned are of the most decidedly ancient and Romanesque character, and many of them highly curious. But this mode of covering churches was resumed in later times, and in England is extremely common in that which Mr Rickman terms the *Perpendicular* style; of which construction Great St Mary's at Cambridge is a good instance.

No. 5. Instead of this wooden roofing, it is obvious that the architects would be tempted to extend to the center aisle the same art by which

the side aisles were vaulted. Here however several difficulties offered themselves. The center aisle with its clerestory would have been altogether inadmissible without making it wider than the side aisles. If therefore it were covered with Roman vaulting, the distance of its pillars must be different from that of those in the side aisles, and thus the spaces, without some adjustment, would not correspond.

The artifice which was at first employed, and which forms our fifth method of roofing, was to make the center aisle *twice* the width of the side aisles, and to cover it with compartments of Roman vaulting, retaining the use of *semi-circular arches in both directions.*

By this means the pillars which supported the vaulting of the center aisle coincided with the *alternate* piers, and the pier arches were distinguished into pairs. The roof of the center aisle was divided into squares, by transverse semi-circular ribs, springing from the pillars which belonged to the alternate piers, and these pillars had also semi-circular arches running longitudinally from one to another along the clerestory wall. Each compartment of the center aisle corresponded to two compartments of the side aisles. See Fig. 6.

This mode of vaulting, with semi-circular arches both ways, and with no diagonal ribs, is still found

in several ancient churches; though it has often been replaced by more modern vaults. It is found with considerable dimensions, in the churches of St Maurice and St George, at Cologne; the ancient monastery churches of Laach near Andernach and Eberbach near Elfield; and on a still grander scale in the gigantic cathedral of Spires, where the span of the vault is about 45 feet; and though the storms of war have so often and so fiercely burst upon this city, it is confidently asserted by the most learned antiquaries, that part of the vaulting is of its original form. In most of these instances, and especially at Spires, the compartments are considerably *domical*, the intersection of the diagonals being higher than the summits of the bounding arches. The above instances of Roman vaulting are, however, far inferior in magnitude to those executed by the Romans themselves. The great hall in the baths of Diocletian, now the church of S. Maria degli Angioli, has a span of 67 feet, and the vaulting of the Temple of Peace at Rome is said to have extended as far as 83 feet*.

This arrangement produced some peculiarities in the members of the building which deserve notice.

a. The alternate distinction of the piers is variously marked in buildings of this class. The *principal piers*, or those which possess vaulting

* Ware. Archæologia, Vol. xvii. p. 47.

pillars*, being generally more massive and important; and very often altogether different from the *intermediate piers.* The observations which are to be made on this subject apply to some of the other modes of vaulting hereafter to be described, and will be best illustrated by the notice of examples.

Mentz, Spires and Worms are three colossal buildings belonging to the system now under consideration. Mentz has plain *pilaster masses*† for the intermediate piers, while the principal piers have in front of the pilaster a vaulting shaft rising from the floor to the vault. Worms has the same arrangement, except that the vaulting pillar, instead of being a simple shaft, is a pilaster with a shaft in front of it. Spires, the vaulting of which is the greatest example of this fifth mode, has pilasters faced with shafts, in two stories, for the principal pier, while the intermediate pier has a shaft which runs from the floor to the clerestory uninterrupted.

In several of the ancient churches of Cologne, this alternation is differently marked. In St George, the vaulting pillars are columns in front of pilaster masses, while the intermediate piers are columns‡

* The pillars which run up to the clerestory, and support the vaulting of the center aisle, are called *vaulting pillars.*

† Rectangular pillars or portions of wall, with impost mouldings.

‡ I shall use the term *columns* exclusively for pillars possessing some approximation to the effect of classical proportions; *shafts,* for those which are too slender and long

with cushion capitals*. In this case, however, the compartment of the center aisle corresponds not to 2, but to $2\frac{1}{2}$ of the compartments of the side aisles. At St Maurice the intermediate piers are low pilaster masses, the vaulting pillars tall pilasters. St Cunibert, in a later style, has the same difference. At St Aposteln the intermediate piers have the impost moulding at the sides, but not in front; the vaulting pillars are half columns from the floor. At St Andrew, the intermediate pier has a pilaster mass of some width, with half columns in the sides, supporting the pier arches.

In the transition style, where the triforium is a prominent feature, the vaulting pillars alone run up to the clerestory, the intermediate piers being low masses, as at Andernach, Sinzig, Bopart, and the churches at Coblentz.

As we advance to later examples, these differences become more complicated; consisting often

to have such an effect. Pillar is a comprehensive term including all such upright members.

* The capitals which I have distinguished by this term are extremely common in Romanesque work both in England and in Germany. They consist of large cubical masses projecting considerably over the shaft of the column, and rounded off at the lower corners. Sometimes they are cleft below, so as to approach in form to two or more such round-cornered masses. They may be considered as rude imitations of the very projecting ovolo and thick abacus which compose the capital of the Grecian Doric.

in a greater number or different form of shafts and mouldings in the alternate piers, as at Bamberg, and Limburg on the Lahn.

This alternation of the piers is seldom found in England. It is, however, to be seen at Canterbury, with that kind of vaulting which we shall call *sexpartite*, and at Durham, where it occurs associated with a kind of vaulting shortly to be described, in which the cause of the alternation is almost obliterated.

b. The distribution of the clerestory windows is also affected in this style of vaulting. The obvious construction was to put one such window in the archspace of each arched compartment of the clerestory wall. But it was also usual to have a window in each compartment of the side aisles. According to this arrangement, therefore, the clerestory windows would only be half as numerous as those of the aisle, and would fall between the alternate pairs of the latter.

This is the case in some churches vaulted in the manner now described, but, in general, the light thus afforded, with the small windows then in use, was not sufficient; and attempts were made in various ways to remedy the inconvenience. One of the most common was to place *two* clerestory windows in each compartment of the wall under the transverse vault; and these windows were necessarily near each other, in order that they might be

under the middle and highest part of each arch. In this way, the clerestory windows are in pairs, and though equal in number to the aisle windows, do not lie over them. And the occurrence of the vaulting in double compartments may be discerned outside, from this arrangement of the clerestory windows at alternately greater and less intervals. See Fig. 6.

The former arrangement of windows is found at Laach, though the vaulting in this case is in single compartments. At Bamberg we have it with alternate blank windows outside the clerestory, for the sake of regularity. The other distribution obtains very generally in churches vaulted according to this method, and to the one next to be described. Thus in the cathedrals at Mentz, Spires, and Worms, the clerestory windows are in pairs. The same is the case in St Martin's at the latter place; in the abbey at Eberbach; in the churches at Sinzig and at Andernach on the Rhine, and in St Maurice at Cologne. I do not know that it occurs any where in England, except in the side aisles of the choir at Durham.

No. 6. We have now to notice cases where the vaulting is modified by the introduction of the pointed arch. And, in the first place, where *the transverse ribs* only are pointed*, the *longitudinal*

* The arches which form projecting strips on the surface of the vaulting are called *ribs;* those which run in the direction

ones being, as before, semi-circular, and each compartment of the center aisle still answering to two in the side aisles. This vaulting is not, at first sight, much different from the preceding kind. It varies however in this, that the breadth of the center aisle is no longer necessarily double of that of the side aisles; and also in almost always possessing *diagonal ribs*, which the preceding vaulting in general has not. The alterations of the other members of the architecture which begin to make their appearance along with these and the succeeding changes of vaulting, must be described afterwards. What was said in the last article of the alternation of the piers, and of the distribution of the clerestory windows, applies here also.

Mentz is the greatest example of this kind of vaulting. St Paul at Worms, the church at Andernach, are other instances: the cathedral at Trent, is also of this class. In St Aposteln at Cologne, the transverse ribs are semi-circular, the vaulting being of a kind hereafter to be mentioned; but, commonly, when one of the bands only is pointed, it is the transverse one.

No. 7. The next step in the order of change, is that where both *the longitudinal and transverse bands are pointed.* We have here universal dia-

tion of the length being called *longitudinal,* and those which run across the length, *transverse.*

gonal ribs, and this is by far the most common vaulting in all churches belonging to times after the invention of the pointed vault. It is capable of any proportion of length and breadth, and, in its later form, generally includes lengthways only one compartment of aisle. In the early form however which we have more particularly now to consider, it often contains two compartments, and two clerestory windows, arranged as in the two former cases.

Spires, Mentz, and Worms, the three great Romanesque cathedrals, form a progression with regard to vaulting which illustrates the divisions now explained; at Spires the arches are circular both ways; at Mentz the transverse one is pointed, the longitudinal being round; at Worms both are pointed. The church of St Martin at Worms is vaulted exactly as the cathedral. Bamberg cathedral is an excellent specimen of the same kind; as are the transepts at Gelnhausen and Sinzig, and the nave at Bonn. St Ambrose and Santa Maria delle Grazie at Milan may also be mentioned.

When, quitting the transition style, we come to the completely formed Gothic, we find in all countries where that architecture prevails, numberless instances of this mode of vaulting. The nave of Salisbury cathedral is a good simple example of it. In England the vaulting subsequently became complicated and varied with a much greater number of parts; but in Germany this kind of plain pointed

vaulting is continued without any additional ribs into the period of the richest and most complete Gothic work, for instance, at Freyberg in the Brisgau. It may be observed, that in German vaulting, the parts which have been above described have seldom even the longitudinal rib along the top of the vault which is so common in England.

No. 8. Another kind of vaulting which seems to be as early, or very nearly so, as that just described, and which is very frequent and characteristic, is what I shall call *sexpartite vaulting*. It will be necessary to explain the construction of this and the related classes of vaults.

In the kinds of vaults hitherto described, we have had four hollow spaces or *cells* diverging from the intersection of the diagonal ribs. These cells, which were round or cylindrical in the Roman vaulting, were pointed in the kind last described. This species of vaulting may be called *quadripartite*. If, now, we conceive a compartment which has two pointed clerestory windows on each side, and suppose, from the center of the longitudinal vault of this compartment, oblique pointed vaults to diverge to each of the four windows, we shall have the compartment covered with a roof consisting of six cells, which may be called, therefore, *sexpartite*. We have in this case six ribs diverging from the intersection; namely, the halves of two diagonals, and of the transverse rib between the pair of windows;

besides which the compartment is bounded by transverse bands at each end. See Fig. 5.

This mode of vaulting is exceedingly common in early German churches, invariably accompanied by characters which imply that the transition from the Romanesque architecture is already in progress. St Cunibert at Cologne is a good instance, and St Aposteln was so, till the vaulting was altered a few years ago. In the latter instance, as has already been noticed, the transverse arches are circular, which is not common. Other examples are, Limburg on the Lahn, Sinzig, St Sebaldus at Nuremberg, and a part of Bamberg cathedral. This species of vaulting is found in England in the choir at Canterbury, and though somewhat distorted, in the chapel of the Nine Altars at Durham. The nave at Lincoln has compartments of sexpartite vaulting*. St Stephen at Caen is thus vaulted, and the contemporary Abbaye aux Dames is constructed in the same manner, except that each pair of windows is covered, not by two arches, but by two half-arches, separated by a vertical wall.

No. 9. In the same way in which we speak of quadripartite and sexpartite vaulting, we may also speak of *octopartite* vaulting, when we have eight cells diverging from a common point. This is a

* The choir of Lincoln has a most peculiar combination of vaults, which, to correspond with the nomenclature in the text, might perhaps be called *alternately semiquadripartite*.

mode very commonly employed in vaulting the towers which occur at the crossing of the transept. It may be employed either *on a square base*, each side of the square being divided into two halves: or *on an octagon base*. The square made by the transept's crossing the nave is often converted into an octagon by arches thrown over the corners, and then the latter kind of octopartite vaulting is employed: for instance at St Aposteln; in the cathedrals at Mentz, (the western tower), Worms and Spires; in the churches at Gelnhausen, Limburg, Sinzig; and many others.

St George de Bocherville in Normandy has a tower with octopartite vaulting on a square base: so also Lincoln.

It is very usual to vault the ends of the transept with a roof, of which the compartment towards the nave belongs to the quadripartite, and the other three quarters to the octopartite form; this occurs at Seligenstadt.

No. 10. The vaulting of the polygonal east apse is most commonly half (or rather $\frac{5}{8}$) of an octopartite compartment. In this case the cells are often very acute, as at Gelnhausen, Bamberg, Limburg, Mentz, Worms, &c. sometimes having windows in the escutcheon-shaped end of the cell.

SECT. 5. *On the Nomenclature of Fan-tracery Roofs, or Concavo-convex Vaulting.*

The nomenclature by which I have above proposed to designate the kinds of vaults, applies only to the simpler kinds of vaulting, which class is what I have principally to describe; it contains no provision for the representation of those more complex roofs, which at a later period became so frequent in this country. These roofs are commonly called roofs of "fan-tracery," and are described by Mr Ware, in his Observations on Vaults, as "ribbed vaults by ribs of the same curvature." It may, perhaps, be allowable here to mention the manner in which I would propose to describe these, so as to keep in view their connexion with those enumerated in the present work.

Between two successive *transverse* cells in a groined vault, the roof on each side of the building consists of a mass in the form of an inverted curvilinear pyramid or conoid, which occupies the spandrels both of the transverse and of the longitudinal vaults, its point being at the capital of the vaulting shaft. This space I will call the *spandrel-conoid:* and I shall employ this term, whether its form be horizontally circular or not. In common quadripartite vaulting, this spandrel-conoid will have its horizontal section a rectangle at all heights from the point. Its concave surfaces are the same as the

surfaces of the longitudinal and transverse cells; the transverse ribs run along its surface, and the diagonal ribs along its edges.

The vaulting becomes *complex*, when the surface of the spandrel-conoid is subdivided by additional ribs or *veins** diverging from the top of the vaulting pillar. In this case the faces between these veins are often inclined to each other: the spandrel-conoid becomes a pyramid of many sides with a curvilinear slope, and its horizontal sections become polygons; and, by a change of the same kind, the surfaces become curvilinear, and the sections become circles.

In these kinds of vaulting the portions of the roof are concave to a person looking vertically upwards from the interior, and convex to a person looking horizontally. I would therefore call them both *concavo-convex* vaulting. The chapels of King's College at Cambridge, and of Henry the VIIth at Westminster, are instances of circular concavo-convex vaulting. The vaulting of the Lady-chapel at Wells is octagonal concavo-convex.

In both kinds, the ribs or veins which run along the surface of the conoids and diverge from the top of the vaulting pillar may be called *the diverging veins*. These diverging veins, especially in circular concavo-convex vaulting, are crossed at various distances from their origin by horizontal lines or circu-

* The French have a convenient and expressive term for these lines, "nervures."

lar bands, which may be referred to the point of divergence as their center; and these I will call *the concentric bands.* The spaces in the roof bounded by the diverging veins and the concentric bands, are *the pannels* of the vaulting.

The detail of the vaulting will depend upon the number and position of the diverging veins. In concavo-convex vaulting these may be described by stating *how many pannels* there are *on each side of the transverse rib*, with other peculiarities of decoration. In polygonal concavo-convex vaulting, we often have also shorter ribs or veins tying together various points of the larger ones, (with ornaments or *bosses* at the junctions) and these accessory ribs are in some instances multiplied, so that the roof may be described as *covered with reticulating ribs.*

In all the concavo-convex roofs there occur between the bases of the spandrel-conoids certain spaces along the ridge of the main or longitudinal vault, which from their form I would call *the ridge-lozenges.* These often contain ornamental bosses, &c.

According to this nomenclature, the roof of the Chapel of King's College, Cambridge, would be thus described. It has circular concavo-convex vaulting, with diverging veins, crossed by four concentric bands. The bands are ornamented with coronet points. The transverse ribs are large and prominent. The concentric spaces on each side the trans-

verse rib are divided into twelve pannels (except the space contiguous to the top of the vaulting pillar, which has only six) and these pannels have cinque-foiled heads. The ridge-lozenges are feathered, and have large bosses, a rose and a portcullis alternately.

The singularly complex and artificial roof of Henry the Seventh's chapel at Westminster consists of circular conoids; the two lateral semi-conoids of each transverse section are (or *appear* to be) supported by the vaulting shafts; while the two intermediate conoids as well as that which occupies the ridge-lozenge, have no visible support, and appear as *pendents*. The roof is covered by an exquisite net-work of the veins and pannels which diverge from the points of these conoids. The real support of the roof are the transverse ribs which proceed from the intermediate pendent conoids to the wall, and are connected with the roof by a web of open tracery.

Sect. 6. *Order of Succession of the Kinds of Vaulting.*

All the kinds of vaults enumerated in Sect. 4. are found abundantly exemplified in the ancient churches of Germany; and there cannot be much doubt as to the order in which they began to be employed. This order may be inferred from two circumstances: the construction of the vaults them-

selves, and the accompanying details of the architecture; and the two determinations agree in a remarkable manner. And though much difficulty and uncertainty attends the historical investigation of the dates of the parts of buildings from external evidence, it appears that the testimony of historical writers, as far as we have it, is quite consistent with the inferred succession of inventions. It is to be observed, however, that though we may with tolerable certainty collect from internal evidence the *order* of these modes of vaulting, we cannot in this way determine any thing precise with regard to the *date* of each.

The oldest forms of vaulting which remain to us, are the two first enumerated; Nos 1 and 2; the cylindrical for the choir, and the domical for the apsidal end. This is the vaulting of St Mary Capitoline at Cologne, a building which is asserted to be certainly of the eighth century; and of no less than five or six other churches of great antiquity in the same city. The cylindrical vault possesses no clerestory windows; and it is unfortunate that no nave remains of the date of the above buildings, to shew us how the earliest builders arranged that part of the edifice.

The oldest complete church-vaulting, therefore, is No. 5, the Roman vaulting of the center aisle, and this is employed in Germany at a period when the Normans and English did not vault large spaces,

but covered them in the way described as No. 4. I shall not attempt to draw any inference from this difference: but it may be noticed, that one advantage which the Colognese possessed for the construction of vaults, was the extremely light and durable volcanic tuf which occurs in their neighbourhood, and of which the surfaces of their vaults are composed: the ribs both in this and in the preceding styles of vaulting being of harder stone.

The three great Romanesque cathedrals of the Upper Rhine offer, as has been said, a graduated progression of the earliest forms of cross vaulting, Nos. 5, 6 and 7; and it is scarcely possible, on considering the details and connexion of their members, to believe these vaults to be any other than original. These cathedrals, as to their earliest parts, were all built about the year 1000, or soon after; and a great number of other churches offering the same forms of vaulting claim the same date.

The *sexpartite* vaulting, No. 8, succeeded, along with No. 7, to the earlier forms; it is, however, never found without the indications of a later style than the one just mentioned. Quadripartite vaulting with one window in each compartment, is, in the same manner, manifestly later than vaulting like that of Worms; where, though both arches are pointed, the clerestory windows are still in pairs.

I have said that, associated with the kinds of vaulting last explained, we find innovations in the

other elements of the architecture. What these alterations are, and how they seem to have been produced by the previous introduction of the pointed arch, we must now endeavour to explain.

Sect. 7. *Influence of the Pointed Arch on other Parts of the Architecture.*

The following is proposed as a theory of the way in which the use of the pointed arch led to the general principle of Gothic architecture, and thus, in the course of time, altered and transformed all the subordinate parts.

The leading and predominant lines of Grecian and Roman architecture are horizontal, and this principle continues to have a considerable sway in the Romanesque style.

One result of the operation of this principle is, that the arched lines in this style are looked upon as having an analogy with the horizontal members. The tablets which follow the arch are considered as a kind of entablature; they are called the *architrave* of the arch; they consist of the fascias and mouldings of the horizontal architrave; the arch is horizontal at its summit, and the face of the wall is considered as the frieze of its architrave. The vaulting ribs of Romanesque buildings are flat and square-edged like the horizontal elements.

But as soon as ever the pointed arch makes its appearance, this aspect begins to change. The dia-

gonal ribs of pointed vaults are never flat and square-edged like the vaulting ribs of the Romanesque. *Rolls*, or bent cylinders, constitute these lines. At the same time the transverse ribs themselves begin to have their square edges formed into beads or smaller rolls; in a short time the flat part vanishes and the square rib becomes a roll. It then becomes a cluster of rolls, then a cluster of mouldings; and when the change is advanced so far, parts of the cluster may separate and ramify, and assume any of the endless forms of Gothic architecture.

Now this change seems to be clearly connected with the adoption of the pointed arch. When that step is once made, the attribution of a horizontal character to the arch line necessarily ceases. It has no longer a horizontal summit, or an uninterrupted path from one point to another in the same horizontal line. Its form manifestly indicates an upward direction. It thus loses its correspondence with any part of the entablature, and we are naturally led to refer the arch line to the supporting pillar; to consider it as a continuation of that member, and to give it that cylindrical form which implies such an origin.

This tendency being once admitted, the rest of the change proceeds by a still more obvious connexion. The pillars being thus conducted beyond the capital, we lose all perception of a limitation of them in the direction of their length; they may be

prolonged in extent and diminished in thickness as much as we chuse; their capitals must no longer be square, so as to stop them by a marked rectangular interruption: the common tendency of two shafts to prolong themselves indefinitely upwards, makes it natural to place them in contact; to form them into clusters; to combine them into groups, and to take up again in the arch mouldings the members of such groups. And after this has been done, the formation of those flexible and upward-tending lines, into the tracery of roofs, and all the varied forms of the richest Gothic work, proceeds by a gradation which it is agreeable to trace, but unnecessary to detail.

But while this change of character takes place in the frame-work of a Gothic building, a similar progression may be considered as going on in the openings. When the clerestory windows have become pointed, they share the tendency of the rest of the edifice towards upright prolongation. To construct buildings in which this tendency operates, the architects adopted the excellent mechanical contrivance of strongly projecting buttresses. These were further improved into flying buttresses; and furnished with these admirable implements, the architects of the complete Gothic style seem to have delighted in lifting to an immense height in the air the most gigantic and magnificent clerestories, enclosed by enormous areas of transparent wall. In this way are constructed and suspended the magical

structures of Amiens, Strasburg, Freyberg, Cologne, and in the neighbourhood of the latter, the exquisite abbeychurch of Altenburg. Sometimes, indeed, the architect "magnis excidit ausis"—attempted more than he could execute; as in the instance of Beauvais, splendid even in its failure; where the unexampled height and boldness of the clerestory were imposed on a lower story, which was found too weak for its task, and was subsequently relieved by interpolating a new pier in each interval of the old ones.

Such was the completion of the architectural revolution. The peculiarities of the German churches offer to us a confirmation of this account of its rise and progress; and at the same time seem to shew that the direct operation of the causes of the new architecture is to be sought rather in Germany than in our own country.

For it is worthy of notice, that in the churches of the Rhine, the pointed arch makes its appearance in the vaulting before it affects any other part, and is used to roof buildings in which all the other arches and openings are round: whereas in England, the struggle between the round and pointed styles seems to be carried on in all parts of the architecture at once, giving rise to most curious mixtures and combinations, and seeming to be the result of caprice and indecision rather than of any general cause.

It would be too much to say that we can trace

the effect of the causes above indicated in all the novelties of detail which occur in the passage from the Romanesque style. Many, however, of these innovations are easily referred to the general spirit of the change now described; and it is conceived that the succeeding Chapter, which contains the characters of the transition style, will further illustrate the formation of the complete Gothic.

CHAPTER II.

OF THE CHARACTERS OF TRANSITION OR EARLY GERMAN ARCHITECTURE.

SECT. 1. *Difference of the Early English and Early German Styles.*

THE observations just made apply only to the instances where the change of architecture is completed; and in these, the style of the German buildings resembles very exactly what Mr Rickman has called the Decorated English Style. But there is a large class of buildings in Germany constructed during the period which elapsed while this change was still in progress; and these buildings exhibit features somewhat different from any of those styles which we find in England. The architecture which in England immediately succeeded the Romanesque or Norman, has been called the *Early English* style; and though it may be doubtful whether the first steps which carried architects beyond the Romanesque were made in England, it seems to be certain that the Early English style, as it exists at Salisbury, for instance, was not developed in the

same manner in Germany, and is not, in its most characteristic shape to be found in that country*.

* The difference between the styles in England and Germany which have the nearest correspondence, is by no means confined to the transition style. The Romanesque of Germany, which German writers often call Byzantine, varies in several respects from the Romanesque of England, which we have been habituated to term Norman. Thus we never find in the German churches the ponderous cylindrical piers which we have at Durham, Malmesbury, Steyning, &c.: we have not there the piers carved and channeled as is so frequent with us; (a few exceptions, such as the crypt of St Gereon, hardly disturb this rule.) The German buildings have not the deep rich succession of mouldings to which we are accustomed in the door and pier arches; the latter, especially, are in Germany universally quite plain. The Romanesque of that country does not exhibit the extraordinary multiplicity and fantastical variety of mouldings and ornaments which so distinguishes our Norman—the *beak-head*, the *embattled fret*, &c. are hardly or not at all known. The *zig-zag* and the *triple-billet*, however, are used very prodigally in certain parts of German churches. The complete Gothic, of Cologne cathedral and Oppenheim for instance, coincides very nearly with our best Gothic of the 14th century; the *Decorated* style of Mr Rickman, with *geometrical tracery*. The German buildings are generally purer and plainer in their details than ours, and the absence of dripstones is a remarkable difference. The tall clerestory and polygonal east end form very characteristic parts of the appearance of German buildings of this class.

The complete Gothic which is thus attained alike in England and Germany, is found with the same features in France, as in St Ouen at Rouen.

After this general coincidence, the styles of different European nations seem again to diverge; the beautiful Perpendicular or Tudor architecture which was so much cultivated with us, being quite different from the contemporaneous or corresponding styles of France, Germany, and the Netherlands; and these again apparently being different from each

That the English and the German architects beginning from the same point—the Romanesque, and arriving at the same result—the Decorated or Complete Gothic, should have gone by different roads, and made the transition each through a separate style, is a curious circumstance, and worthy of illustration. As the intermediate style in England has been called Early English, I shall call the intermediate style in Germany the *Early German:* and the following pages will be employed in an endeavour to characterize it; which, so far as I know, has not yet been attempted. I shall, for this purpose, point out its differences from the preceding or Romanesque style, for the differences between it and the complete Gothic are more obvious. The general character of the style is rather Romanesque than Gothic, though it has pointed arches and various other Gothic elements. The general character of the Early English on the other hand is decidedly Gothic; and, indeed, it cannot be considered otherwise than as a fully developed Gothic style.

To a person who has made himself acquainted with the Early English style, the differences which the Early German presents are very obvious. They have in common their slender shafts, clustered and

other. And in these different paths the different countries seem to have gone on till the introduction of Italian or the revival of Classical architecture.

banded, their pointed arches, and their mode of vaulting; but we do not commonly find, in the interior of the transition churches of Germany, the circular cluster of shafts,—the arches moulded into a broad and deep mass of small rolls with deep hollows between,—the circular abacus with its rounded upper edge,—the single lancet-headed windows, tall and narrow,—and the peculiar line of open flowers which is used so profusely in all Early English work. Nor do we observe, on the outside, the dripstone to the window,—the moulded or shafted window-sides*,—the projecting buttress with its chamfered edge and triangular head,—the pyramidal pinnacles,—of our early cathedrals. What the elements are, which we have in this style in Germany, will appear by the following description; and for the purpose of exhibiting the characters of Early German churches, I shall consider their parts in the following order: the Plan; the General outline; the Vaulting; the parts of the Interior; and of the Exterior.

* The edge of the window opening when sloped or broken into mouldings, cannot, in Gothic work, be properly called the architrave. It is frequently necessary to mention it, and I have for this purpose used the term *window-side* in a fixed technical sense.

Sect. 2. *Characteristic Details of Transition or Early German Architecture.*

I. The Plan.

The *Plan* of the church in the Early German, as in the Romanesque style, consists principally of three aisles, of which the center one constitutes the nave and choir, and has a polygonal or semi-circular apse at its east end. In considerable buildings we have also generally a transept, and various other chapels for altars, besides the eastern altar. A difference observable in these points is, that in the older style the apse is generally semi-circular, in the transition style it is polygonal. In the old churches the eastern sides of the north and south transepts were formed in like manner into semi-circular apses (as in the old church on the Johannisberg, in the ruined church of St Peter at Gelnhausen, and in the abbey church at Laach). And though in the succeeding style also it is common to have chapels on the east of the transept, these have seldom a simple semi-circular form; but have sometimes an additional recess, as at Gelnhausen and Sinzig; or some other form, as at Limburg; or disappear along with the transept, as at Bamberg, Andernach, and Boppart.

We have already had occasion to mention another arrangement very common in the early churches, and especially in those of Cologne, viz.,

that in which each end of the transept is formed as an apse (for instance, St Mary Captoline, St Aposteln, St Martin, &c.) And this also is occasionally imitated in the transition style, still substituting a polygonal for a semi-circular end, as at Bonn, and at Marpurg, if the latter be not too late to be here introduced. It is remarkable, that we find in many churches a round apse in one part, and polygonal ones in other parts. Thus at Bonn the end of the choir is circular, of the transepts angular. Here also may be mentioned instances such as those of Mentz, Worms, and Bamberg, where we have an apse at each end, round at the east, and angular at the west: the latter being in all these cases, as well as in the western apse of St Sebaldus at Nuremberg, of the style now described.

In such cases of an eastern and western apse, we have also generally a western as well as an eastern transept, as at Mentz: and this second transept is found in several other churches, mostly Romanesque ones; as St Aposteln, St Andrew, St Pantaleon at Cologne; St Paul at Worms; the Schotten-kirche at Nuremberg. St Cunibert at Cologne has likewise a western transept.

The towers in many of the churches of the earliest style are near the east end. In the transition style it is very common to have towers both at the east and west, as at Bamberg, Andernach, Bonn, Arnstein, Limburg. The latter, indeed, according

to the plan, would have had two towers at the west end of the nave, and two smaller ones at each end of the transept, besides the central octagonal tower which it has in common with Gelnhausen, Seligenstadt, Sinzig, Heimersheim, and Bonn.

II. The General Outline.

The *general outline* of the church must depend principally upon its towers. If we suppose the great cathedrals of Mentz, Spires, and Worms, to be executed according to the original plan, which seems to be preserved to us in the form of the church of Laach, it would appear that the complete type of a large church consisted of four towers, (the two pairs having different forms and magnitudes,) and of two cupolas or pyramids. We have probably one of the best external elevations of such cupolas in the graceful octagonal pyramid of St Aposteln. In this manner the outline of a single cathedral would present a group of edifices, clustered and varied like the view of a fine city. We see a specimen of the effect of such a group at Laach, just mentioned; where the deserted abbey church, standing with its six towers on the banks of the remarkable lake of that name, is a highly picturesque object*. Mentz has a striking appearance, but is somewhat spoiled by the inappropriate restorations which it has un-

* A sketch of this church is given in Plate 3.

dergone. Worms is another instance of a group of towers. This complexity of outline does not appear to have been imitated by the architects of the Transition style; and in their buildings we have either two pairs of towers, as at Andernach, Bamberg, and Arnstein; or a center spire with a pair of towers; either eastern towers as at Gelnhausen, and we may add St Cunibert at Cologne; or more generally western towers, as at Limburg, Bonn, Sinzig, Heimersheim, Seligenstadt, though the two first have smaller turrets besides. Boppart has two, and Bacharach one western tower only—at least remaining. The subordination of the lateral to the central towers in the group, where that combination is found, and the perspective configurations of the two pairs, in churches with four towers, produce a very pleasing effect in these buildings when perfect.

The towers of the Early German style, as well as of the Romanesque, have generally their sides terminated by pediments. It appears to be generally true, that in the earlier style these pediments have the angle at the summit nearly a right angle, and the horizontal, as well as the inclined cornices, strongly marked. In the later towers the pediment is more acute, and the cornice lighter. Sometimes, as at St Martin and St Cunibert, the tops of the towers are horizontal.

III. The Vaulting.

The kinds of vaulting used in the churches of Germany have already been described in Chapter 1, and we have noticed the order in which they succeeded each other. It will be sufficient to remind the reader, that the cylindrical intermediate compartments (No. 1.), and domical east end (No. 2.), belong to the oldest Romanesque buildings—that the Roman vaulting (No. 3.), is used for crypts and for side aisles—that in the oldest Romanesque buildings, we have, over the center aisle, either flat roofs (No. 4.), or large Roman vaulting (No. 5.); that in the progress of art this vaulting becomes pointed, either in the transverse direction (No. 6.), or in both directions (No. 7.), the compartments being still *double* those of the side aisles, and the rest of the members continuing to be of a Romanesque character.

These latter species of vaulting are used also when the transition in the other members is already very manifest, as at Andernach, Bamberg, &c. The sexpartite vaulting (No. 8.), and the vaulting (No. 7). with *single* compartments, belong more decidedly, however, to the transition style. At St Cunibert at Cologne a great part of the work much resembles the Romanesque churches in the same city; the plain round pier arches rest on pilaster masses, the east end is a semi-dome, &c. But the vaulting is

sexpartite, with cells slightly pointed; and accordingly we find other innovations: viz. the quadripartite vaulting of the side aisles has diagonal ribs; the vaulting pilasters have slender shafts at their sides; the shafts between the upper windows in the apse are three-clustered; the aisle windows are many-foiled semicircles; and the clerestory windows much larger than in the pure Romanesque buildings. And in the same manner we may trace in other churches a variation of the subordinate elements accompanying the newer kinds of vaulting. We may particularly observe the flat and square-edged vaulting-ribs of the pure Romanesque, first acquiring roll edges, and finally becoming curved mouldings, as has already been noticed in Sect. 6. of Chap. I.

The round east end so generally characteristic of Romanesque churches, where we have a domical apse lower than the choir, is, in the transition style, exchanged for a polygonal form; and is vaulted with diverging cells, and raised to the same height as the roof of the choir, (vaulting, No. 10.). It is remarkable, that in the cathedrals at Mentz, Worms, and Bamberg, the eastern apse is domical and ribless, while the western one has octopartite vaulting with pointed cells. The west end of St Sebaldus at Nuremberg is vaulted in the latter way; as are the east ends of Gelnhausen, Limburg on the Lahn, Seligenstadt, Sinzig, and the transept ends of

Bonn. This vaulting of the apse is also retained in the complete Gothic style, and has certainly great beauty.

The octopartite vaulting is also often used in the transition style to cover the crossing of the transept; or the octagonal tower which rises from it, as at Seligenstadt, Gelnhausen, Limburg, the western parts of Mentz and Worms, &c.

Sometimes, however, we have in such a situation a dome with octopartite ribs, as at Sinzig, and at Heimersheim, about a league further up the Ahr. This vaulting occurs also in the choir at Seligenstadt. We have the octopartite vaulting with a quadripartite cell next the crossing, in the transepts of the latter church, also in the transepts of Limburg and of St Cunibert, and the organ loft of Bacharach. The nave of Boppart is peculiar, its vaulting being a succession of domes on square bases, which have sixteen-partite ribs; but here perhaps, the walls were originally built for a flat roof.

The octopartite vaulting is used, as has been said, to cover an *octagonal tower;* and in the cases where such a feature exists, it is proper to notice the manner in which it is *set on* upon the square, (generally the crossing of the transept,) which is its basis. A mode of making the junction which appears to belong to the earliest style (though not exclusively) is seen in St Aposteln at Cologne: the sides of the octagonal tower which correspond

to the angles of the square basis, and consequently project over them within, are connected with these angles by a portion of a concave ribless surface or *concha*, such that the main longitudinal and transverse arches which support the tower, and the upper boundary of this concha, form a sort of spherical triangle. The eastern cupolas of Mentz, Worms and Spires, the center towers of Seligenstadt and Gelnhausen, are constructed in the same manner.

But in the Early German churches there is another mode of supporting these octagonal towers, which seems to belong more peculiarly to the transition style, of which the western cupolas of Mentz, Worms, and the tower of Limburg are examples. In these cases the concha above-mentioned is hollowed, so that its upper boundary forms an arch in the side of the octagonal tower. These arches have well-marked mouldings; and along with them we have corresponding arches in the other sides of the octagon, shafts in its angles, and other decorations which did not appear in the former method of erecting such towers.

IV. Interior.

I will next consider the *separate members of the interior*, taking them in this order: the piers and pier arches; the triforium; the clerestory; the side walls and windows; and the peculiarities which occur in the choir and transept.

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1. *Piers and Pier Arches.*

The *principal,* or vaulting *piers* in the Romanesque style were often engaged columns, as at Laach, St Mary Capitoline, St Gereon, and St Aposteln at Cologne; and as they are found in the aisles of a great number of churches, for instance, St Andrew, St Pantaleon, St Maurice at Cologne, the church at Ems, and many others. In other instances, the vaulting pillars were pilasters, springing from the ground, as in St George and St Maurice; or from the impost, as in St Ursula, and in the desecrated church of Eberbach, &c.

If we examine large Romanesque buildings, at Spires we find one column upon another, the upper capitals being of a very classical model. At Mentz the tall shaft is used alone. At Worms the pillar is too tall to be called a column, and has pilaster edges on each side. These three colossal cathedrals are remarkable for the simplicity of their parts.

When we approach the Early German style, we seldom find columns and pilasters approaching to classical proportions, in the situation now spoken of, and the alterations, though gradual, are very various.

We have pilasters with shafts at the sides, at Sinzig, Bonn, and St Cunibert; advancing still by a repetition of these parts, we have often an as-

semblage of *engaged shafts and pier edges**, as at Limburg, Seligenstadt, Andernach, Bamberg; and sometimes triple shafts alone, as at Bacharach. In many instances, where the vaulting of this style has been added to an earlier building, we have vaulting shafts, clustered or single, springing from a corbel, or, more generally, from an end *hooked* into the wall above the impost. This occurs at St Mary Capitoline, and St Martin, in the nave, and is, indeed, very common.

Between the principal piers occur the *intermediate piers*, and these either send up no vaulting shafts at all, as in the three great cathedrals just mentioned, and in quadripartite vaulting on a smaller scale, for instance, St Andrew at Cologne: or in sexpartite vaulting they supply vaulting shafts smaller and less important than the principal piers, as in St Cunibert, St Aposteln, Limburg and Bacharach, where these intermediate vaulting shafts spring from the *triforium tablet*†. These intermediate piers in large Romanesque buildings are tall pilaster-formed masses with imposts; as at Mentz, Spires and Worms, where they are on a gigantic scale. In other early churches we have piers of

* I use this expression to describe a pier very common both in England, France and Germany, consisting of a number of *shafts set in square recesses*, according to Mr Rickman's phraseology. A plan of such a pier is given in Plate 4.

† The running tablet or cornice below the triforium.

the same kind; for instance, at Eberbach; also at St Martin, St Maurice, the nave of St Mary Capitoline, and St Aposteln at Cologne. And this occurs in many churches which seem not to have been intended for vaulting, as, for instance, Limburg on the Haardt, Schwarzach near Rastadt in part, the old church at Schaffhausen in part, the Obermünster Kirche at Ratisbon. We find, however, in such early churches, and, perhaps, as a form more prevalent in the earliest times, the arches supported by columns, of proportions nearly classical, and sometimes with a classical diminution of diameter upwards. These columns have very frequently a *cushion* capital. Such columns occur in the apses of St Mary Capitoline, St Peter's at Gelnhausen, in the curious old church of St George at Cologne, in the churches at Schwarzach, Schaffhausen, and the Schotten-kirche at Ratisbon.

In other instances we find in the intermediate piers the columns *engaged* in the sides of a square pillar. In these cases they have more commonly, so far as I have observed, capitals resembling the Corinthian, and these often very well executed, as, for instance, St Andrew at Cologne, St Castor at Coblentz.

In such cases, the introduction of a thick roll-formed transverse vaulting-rib instead of a flat one seems to belong to a very early stage of the progress of the art. See St Cecilia, St Pantaleon and Ems.

When we advance from these Romanesque churches to the Early German ones, we find the intermediate piers in some respects changed. In a great number of churches the secondary pier becomes much lower and broader than before, a change which seems to be connected with the peculiarity of the triforium which we shall shortly have to mention. Thus at Sinzig, Andernach, Boppart, Bacharach; in Notre Dame and St Florian at Coblentz; and at Limburg on the Lahn, we have such low piers. At Bamberg, Gelnhausen, and Seligenstadt, they are not so low. In the cases where the pier arches are not in pairs, all the piers have of course vaulting pillars, as at Bonn.

The pier arches are sometimes round and sometimes pointed, without any apparent rule as to order of time: they retain the former figure in instances where the pointed arch is copiously introduced in other parts, and the style considerably developed, as, for example, at Bonn. The round arch is found in this situation at Bonn, and at Andernach; at Notre Dame, St Florian, and St John at Coblentz; at Sinzig, Andernach, Boppart, Bacharach,—on the Rhine; and at Arnstein on the Lahn. The pointed pier arch occurs at Bamberg, Limburg, Seligenstadt, Gelnhausen, and Heimersheim.

The arch is often merely a square-edged opening with no mouldings whatever. Sometimes it has a rebated edge, and sometimes a roll, but very seldom any further ornament.

2. *Triforium.*

I speak next of the *Triforium;* and here I observe, that this member does not seem to have entered into the idea of the original Romanesque architects. The space over the pier arches and under the clerestory windows which the slope of the roof of the aisles occasioned, is left a blank, often with a rather awkward effect, in the finest early buildings. Thus, at Laach and Eberbach, we have not even a moulding to occupy it. At St George, St Ursula, St Gereon (choir) and St Maurice, the case is the same. In the three great Romanesque cathedrals, we have a horizontal moulding and some pannel edges, but no important feature. This horizontal moulding occurs also at St Andrew, where it is enriched with excellent foliage; at St Cecilia, and in many other Romanesque buildings.

In England, in our Norman buildings, and almost constantly in the later ones, this space in large churches is filled by a row of openings or pannelings, of various kinds. It is mostly, however, a merely ornamental member, and I do not know that it was ever applied to any customary use.

But in the Early German churches the case is different. In almost all that decidedly belong to this class, we have, instead of the blank wall of the former style, a large open gallery forming a second story to the side aisle. And in most of these in-

stances, or at least in the churches on the Rhine above Bonn, this gallery is still appropriated to a particular part of the congregation, namely, the young men, and is generally called the *Männerchor*, or as I was told at Sinzig, the *Mannhaus*. This gallery naturally makes it convenient to have the pier arches somewhat low, which it has been already observed is the case. The openings of this gallery, which of course stand immediately over the pier arches, are variously arranged. Often there is a large plain semicircular arch, which however has frequently shafts at the sides when the pier below is plain. In Notre Dame at Coblentz, in Heimersheim and Bacharach, and in Ditkirchen on the Lahn, this is the case, though the latter has the appearance of being a Romanesque building with these openings cut afterwards. But the more general arrangement is to have this round-headed opening subdivided into two or three subordinate openings separated by shafts which are often in pairs. This is the form which obtains at Sinzig, Boppart, Andernach and Limburg on the Lahn.

At Bamberg this Männerchor is wanting, perhaps because the usage on which it depended was local. It is remarkable that none of the churches at Cologne possess such a gallery (except St Mary Lyskirchen, where it is not so appropriated, and is apparently later than the building.) There are in that city several instances of ornamented triforiums.

St Aposteln, which seems to stand on the boundary line between the Romanesque and Early German style, has a series of round-arched *pannels on shafts**. St Cunibert, which is a decided example of the latter style, has a similar row of pannels. Bonn, at the border of the district occupied by the churches where the Männerchor is general, and which belongs to the same period, has a row of pointed pannels on shafts, but no gallery. St Sebaldus at Nuremberg resembles Bonn. Limburg, in another part of the country, has an open gallery, and likewise a row of pointed pannels above. Arnstein, also situated on the Lahn, and resembling Limburg in its form, has a blank wall in the triforium.

In the construction where we have the Männerchor, there are of course two roofs to the side aisles, and they are generally both of the earliest or Roman kind of vaulting with no diagonal ribs. There is one remarkable exception at Sinzig, where the vaulting of the Mannhaus is of a kind, which, from its ribs, might be called tripartite, and which has two cells in the outer wall corresponding to one pier arch. As the lower vaulting of the aisle is the plain quadripartite, two windows of the Männerchor correspond to one of the windows of the aisle, and stand in quincuncial positions to them. In

* That is, the shafts support the arches and separate the pannels.

other cases there are two rows of windows in the aisle which correspond to each other in a regular manner.

3. *Clerestory.*

Next, as to the *Clerestory:* The small round-headed window is almost universal in early buildings, and continues with little alteration, except perhaps an increase of size, after the vaulting and other parts have become pointed. But the disposition of these windows is often remarkable. In Romanesque buildings two small windows near one another are placed in the head of each semicircular compartment, and thus the clerestory windows no longer answer to those below, even when the number is the same. This collocation must be considered as belonging to a very early style, inasmuch as it depends upon the supposed necessity of using a semicircular arch. It is found in the monastery of Ebrach; in the three great cathedrals of this style (less marked, however, at Worms and Spires) and in the Romanesque churches of St George, St Martin and St Cecilia. In the succeeding style, this arrangement also obtains at Andernach, though the transverse arches of the vaulting are there pointed. At Bacharach and Boppart we have two rows of clerestory windows, one below the vaulting capitals, and one above, but it is difficult to say if this was the original intention.

In many Romanesque churches, however, we have but one clerestory window in each compartment of the vaulting; and if in this case the compartments are subdivided into two in the aisles, we have twice as many windows below as above. This is the case in the ancient church of Laach; and this arrangement is adopted in the succeeding style at Bamberg and Limburg.

Besides these forms of the clerestory, which are common to the Romanesque and the Transition, we have frequently in the latter style windows of a new kind introduced. Thus, at Bonn, we have triads of windows of which the centre one is highest; but this form, though very common in Early English, is not general in Early German. A window which is frequently found and peculiar to this style, is a *fan-shaped* window, which may be described as the upper part of a circle (more than half) of which the circumference is cut into round notches. This obtains in the clerestory of Sinzig, and of the dome of St Gereon; (which latter, however, has another range of windows above). The same window is found in the side aisles of Bonn, St Cunibert, St Gereon, and Notre Dame at Coblentz.

In speaking of the vaulting shafts, their capitals were not particularly described. In the earlier Transition buildings, the capital is often a bell-shaped block, or some similar form, with a square abacus; at a somewhat later period of the change,

we have upright leaves like those of the Early English, still with a square abacus. This square abacus must be considered as a Romanesque feature, and the Gothic is not complete where it occurs; but it is one of the last traces of the Transition style which we lose. In England this form disappears at a much earlier period of the change. In the course of the transition, we have often two square abacuses set obliquely to each other in the vaulting, as at Bonn and Seligenstadt; and this occurs also in England, as at Romsey. In triple shafts, there is sometimes over the center one a projecting angle in the abacus, as at Ebrach near Bamberg.

Afterwards, we have the polygonal abacus which properly belongs to the Gothic, and under it either woven foliage, or crumpled leaves, or not unfrequently two rows of flowers, as at Oppenheim, and in several of the cathedrals of the Netherlands. The round abacus, so common in our Early English buildings, is found but rarely in Germany; it occurs in the shafts between the choir windows at Remagen and Heimersheim.

4. *Aisle Windows.*

The windows of the side aisles have been already described in speaking of clerestory windows; and the pillars of the aisle vaulting which stand between the windows have been mentioned in treating of

vaulting. The wall in Romanesque and Early German churches has seldom any ornaments interiorly, and the windows have generally plain sides.

5. *Apse.*

The *apse* is generally distinguished from the rest of the building by various peculiarities of architecture. In small churches it has mostly no aisle, to which however St Mary Capitoline is a fine exception. The east end of Worms has also an aisle. These apses generally consist of two stories of arches on pillars, some of the arches being open as windows. The pillars are various; single, as in the transepts of St Mary Capitoline, and most small churches; or double, as in the choir of the same church. One of the alterations which takes place in passing to the Early German style is, that these shafts come to be clustered, often in threes, often banded; sometimes, as at Remagen, with a round abacus, though this is a resemblance to Early English shafts, which is rarely found in Germany. There is no part of the building where the transition from the earlier to the later style is more marked than in the apse. The form becomes polygonal instead of circular; the sides of the polygon are extended upwards into *vaulting-escutcheons**; slen-

* The wall at the ends of the pointed vaulting-cells has the form of an inverted escutcheon, and is here designated by that word.

der shafts, often banded, are placed in the angles of the polygon; the windows become pointed, and are flanked by shafts; there are openings above the windows in the escutcheons, and the whole structure assumes an appearance of being elongated upwards, and of having its parts drawn into a slender and delicate form. This description applies to the east ends of Gelnhausen, Seligenstadt, Limburg, Sinzig, Heimersheim; to St Severin at Cologne; the north and south apses of Bonn; the west ends of Mentz, Worms, Bamberg and St Sebaldus at Nuremberg.

In Heimersheim and Remagen, which are small and ill-executed churches, we have apse windows which are comparatively tall and narrow. If we suppose the same plan to be adopted on a larger and more complete scale, we shall have an easy transition to the splendid, lofty and transparent polygons which form the apses in the fully developed Gothic.

6. *Intermediate Compartment.*

The *compartment next the apse* is very often differently constructed from those which make up the remainder of the church, especially in Romanesque churches. In those which have a transept, this compartment generally fills up the *intermediate space* between the apse and the crossing of the transept; and in these cases it is very often without its windows above. This circumstance may

sometimes have arisen from this part of the church having towers built against the outside. This blank occurs, for instance, at Laach, at the east end of Spires and Worms, and also at Mentz, though here this compartment has the cupola over it. Among the *transverse-triapsal** churches of Cologne, St Martin and St Aposteln have the upper part of the walls of this compartment filled up by two stories of small arches, some on shafts and some on little pilasters. St Mary Capitoline has it with arches below and above like the other compartments of the apse, but without any opening. Something similar is the case in most of the other churches of that style. Perhaps the object was to give effect to the windows of the apse, which were generally filled with fine stained glass, by admitting no lateral light to distract the eye in their immediate neighbourhood.

Features in many respects similar mark this part of the church in the succeeding style. At Andernach, Bonn, and Boppart, it is blank. At Sinzig, Limburg, and in Notre Dame at Coblentz, it has peculiar decorations in the triforium and clerestory, which, sometimes, as at Limburg, are the continuation of those in the transept. The

* Viz. the churches which have apses at the ends of the transept, as well as of the choir. They are to be distinguished from *parallel-triapsal* churches, where we have three apses all towards the east.

lower story is often occupied by an arcade; and not unfrequently in the Early German churches, this consists of strong trefoil-headed arches on shafts or corbels, or intermixed. This we have at Seligenstadt, Gelnhausen, the west end of St Sebaldus at Nuremberg, and of the cathedral at Bamberg.

The lower part of this intermediate compartment is often modified by the intention of adapting it to the stalls, with which it was to be filled up. On this account, the vaulting pillars often spring from corbels, as at Bonn and St Severin, or from the triforium tablet, as at Bamberg.

In the last-mentioned church, the western choir is flanked by the two western doors; and to separate the choir from the aisles, which thus become entries, there are original stone screens, which have trefoil-headed pannels, rich shafts, and sculpture. We have similar partitions at Mentz and at Limburg, and probably at other places, though these screens are often later.

7. *Transept.*

The decorations of the *transept* are for the most part a continuation of the members of the nave or choir. These members are however frequently somewhat modified, but it is difficult to give any general account of the alterations which occur.

The mode of constructing the *ends* is sometimes characteristic. In the early and simple Romanesque

churches, it is very common to have two plain small windows below and one above, as in the ruined church of St Peter's at Gelnhausen, in the old church of Eberbach, and in St Castor at Coblentz. In other churches, as at Spires (and this is the case with many Norman churches), we have three or more stories, and in each story, two round-headed windows.

But in the Early German style, there is a disposition to use triads of windows, and also very commonly circular windows variously ornamented, as at Bamberg, Ebrach, Gelnhausen and Mentz; in which cases the round windows are plates perforated with openings, so as to approach to the effect of tracery. These circular windows are also found in the west ends, as in St Paul's at Worms, and in Limburg; and on a smaller scale in the sides of the polygonal apse, as in the cathedral at Worms; or in the escutcheons of these sides, as at Gelnhausen.

V. Exterior.

I have now to mention the *parts of the exterior*, and of these, the most important are—the windows, the mode of ornamenting the side walls, the apse, the fronts (the west end and the transept ends,) and finally, porches and buttresses.

1. *Windows.*

The *windows* have little variety. They are generally, both in Romanesque and Early German work, small and round-headed: in the latter style, however, they are sometimes pointed and sometimes also accompanied by a roll moulding. It has already been noticed, that as the Early German advances, the windows are sometimes found in triads with the center one tallest.

2. *Corbel Table.*

The almost universal decoration of Romanesque side-walls, is the corbel table with circular *notches*, and with *pilaster-strips** between the windows running up into it: and this is found in great profusion in most of the examples of that, and also of the succeeding style. In some of the cases where the workmanship is rich, as at Laach, we have flowers, &c. in the *notch spaces* of the corbel table, and the edges of the notches formed into a roll moulding: but to employ any other moulding, or to make the form of the notches pointed, as at Bamberg, belongs to the later style. This corbel table is replaced, in the transept end of Bamberg, and the

* I use the term *pilaster-strips* to designate projections from the wall, which are about the breadth and proportion of pilasters, but have no capitals, and pass into the corbel table.

neighbouring church of Ebrach, by a peculiar ornament with semi-circular horizontal notches.

3. *Apse.*

In very plain churches, the Romanesque corbel table also runs round the head of the *apse* wall. But in the greater number of the churches of that style the apse is finished in a manner very peculiar. The windows are placed in round-headed pannels which are on shafts or pilasters, and run in one or two stories. Over these is an *apsidal gallery and cornice:* the gallery consists of open round-headed arches standing on small shafts two or three feet high, and *set two deep**: and in this line of shafts, groups of four, or other distinctions, occur at regular intervals. Above this, is a bold projecting moulding, consisting generally of two quarter-rounds with a hollow between, the lower round being cut into billets, the upper one enriched with leaves, as classical mouldings often are. Below the gallery is in most cases a line of small rectangular sunk pannels. This particular combination of ornaments is employed with remarkable consistency and uniformity in a

* Shafts set two deep are a very common mode of enriching Romanesque buildings, and date apparently from a very early period. They are found for instance in the cloisters adjacent to the ancient churches of Laach, Zurich, and Aschaffenburg. They exist also in many ancient buildings in Italy; and in the palace of Frederic Barbarossa at Gelnhausen.

great number of Romanesque churches, as St Mary Capitoline, St Martin, St Castor at Coblentz, the east end of Mentz, Spires, &c.: Laach is an exception.

This mode of ornamenting the apse is employed with equal constancy in the next style; as for instance, in the west end of the cathedrals of Worms and Mentz, and in the east ends of St Paul's at Worms, Andernach, Bacharach, Sinzig, Bonn and Bamberg.

At Limburg, the gallery has square-headed, at Gelnhausen, trefoil-headed openings.

These open galleries certainly give great richness and beauty to the upper parts of the buildings where they are used, and seem to have been favourite decorations with the architects. They are often carried along other parts of the building besides the apse. Thus at Spires they are continued all round; at St Aposteln they run along the square part of the east end: and the octagons which occur in Romanesque and Early German buildings are often thus enriched; as at Worms, (both the octagons), at St Aposteln and St Gereon.

It is also to be noted, with regard to the apses of the Early German churches, that we see in them the buttress beginning to appear, though very flat and small. It has generally a triangular or *gable* head. See Mentz, the west end, and Bamberg, the west end.

In later work, the galleries are carried along the clerestory, with arches somewhat larger, and often pointed, as at Limburg and Bonn.

4. *Towers.*

The Romanesque *towers*, and those which succeeded them, have at first sight a great resemblance; both consist of a number of stories with corbel tables and round-headed pannelings and openings to most of the stories. The trefoil-headed pannel as well as the round-headed one appears to occur in very early work, as for instance at St Castor and Laach.

On a closer examination, however, it seems not impossible to find differences between the towers of the two styles. The square towers have often their sides terminated upwards by a gable, so as to make the covering a square pyramid set on diagonalwise upon the square of the tower. In the earlier churches, these gables or pediments have not acute angles, and they are bounded, both at the lower edge and at the inclined edges, by a strongly marked cornice. The towers of the Early German style have, at least often, a more acute pediment, with cornices, especially the horizontal one, more slight; as for instance the west tower of St Aposteln.

The four towers of Bamberg, which must be considered as belonging to the transition style, are of a very rich and peculiar character, and, like the rest of that noble cathedral, of very excellent work.

Other differences are to be found in the corbel tables of the later churches. At Andernach, Boppart, Limburg, &c. besides the usual corbel table, there are, over the windows, in several of the tower stories, lines having embattled or wavy forms, and variously enriched. When the openings become pointed, the shafts banded, or clustered, or much multiplied, and the mouldings deeper and more complex, the features of the newer style are more obvious, as at Bonn, Sinzig, Heimersheim and Gelnhausen.

5. *Fronts.*

The *fronts*, and the west fronts in particular, of Romanesque and Early German churches, are not commonly distinguished by any very remarkable features. In many instances of the former style, as has been observed, the west end is an apse, as well as the east. Laach, where this is the case, has at the west end a square court with cloisters, which forms a sort of portal to the church: so also has St Mary Capitoline. At Lorsch the very old and curious chapel which is still preserved seems to have been a part of such a portal space*.

In most early buildings, where there is a west front, it has a few round-headed openings at the ends of the side-aisles, as at Eberbach.

* We find similar portal cloisters in Italy, as in the church of St Ambrose at Milan.

But there are few cases where these fronts are visible as constructed by the Romanesque architects. They are often concealed by their connection with other buildings, or superseded by later erections.

In the west fronts of the succeeding style, and also in the transept ends, we have often to remark doors with pointed arches, detached and banded shafts, and enriched roll mouldings, which to an eye accustomed to English architecture have a more completely Gothic character than the other parts. This may be noticed at St Gereon, St Cunibert, Sinzig, Andernach, Bonn and Limburg.

A mode of ornamenting the roll mouldings of the arch, which is very common in these cases, is to give it bands, as if it were a shaft, at certain intervals: for instance, at the highest point, and at the middle points of the two sides of the arch. Another ornament which is common, is a little roll or *rouleau* placed transversely under the summit of the arch, so that its circular end just occupies the arch-point.

The arrangement of windows in the transept end has been mentioned in speaking of the interior. Exteriorly the transept has often a pilaster or *buttress-strip** dividing the front into two halves, with windows on each side. This arrangement is also that of our Norman buildings. At Spires the pilas-

* A broad flat buttress of slight projection.

ters have good Corinthian capitals, and the architraves of the windows are enriched.

Here may be mentioned the fronts of the old cathedrals which are found in the north of Germany, as at Brunswick and Goslar. They consist of a wall of very plain work pierced with a window, flanked by octagonal towers, which have round-headed openings subdivided into double openings by shafts.

The Italian Romanesque fronts have generally one or more circular windows, and a quantity of arcades, horizontal and sloping, with other enrichments, and also the curious portico shortly to be described.

6. *Porches.*

We here speak of *Porches*, so far as they are to be found in these styles of architecture. In our Norman buildings in England such a member sometimes appears; but a distinct porch is not found in the Romanesque churches of Germany. In Italy, at least in Lombardy, it appears to be a common part of the earliest buildings. Several of the old and curious churches of Verona, as St Zeno and the cathedral, have a remarkable portico; and this, from the representation in Mr Kerrich's paper in Vol. XVI. of the Archæologia, appears to occur also at Placentia, Modena and Parma.

This portico consists of a covering projecting

from the wall of the church, and supported at each side by one or more pillars. The covering has a triangular pediment and sloping roof above, and a barrel vault below: and is very often in two stories, as in the cathedral at Verona, Placentia, Modena and Parma; and sometimes in one story only, as at St Zeno. The pillars at the sides generally rest on lions or other animals, and when there are more than one pair, as at Verona, are varied in their proportions and capitals, and are some of them twisted, &c. A portico similar to those of one story occurs on the south side of the cathedral of Trent; one somewhat different, with groining, being found on the north side of the same church.

In the German churches the style which succeeded the Romanesque has often porches at the west end of the church, consisting of a few compartments of groining (generally two) supported by pillars. Such porches are found at St Martin, St Cunibert and St Gereon.

Another member having some analogy to a porch should be noticed. It consists in the front of a porch stuck against the wall; that is, the door, instead of being in the plain wall, is opened in a compartment having a slight projection, and bounded by upright returns to the right and left of the door. This *projecting face* of wall is sometimes ornamented with sculpture, of which the Schotten-kirche at Ratisbon is a very curious example. At other times it has

only the mouldings of the other part of the wall, occasionally with the addition of the foliage of the capitals of the door-shafts continued as a running moulding. Instances are Andernach, Bamberg and St Sebaldus at Nuremberg.

This is found, so far as I have observed, principally in Early German work.

The doors in most of these cases are round-headed, and have the tympanum filled up and enriched with sculpture. And in such doors, the lintel which bounds the tympanum below has its upper edge formed into a low pediment.

7. *Buttresses.*

It must be considered remarkable that in the Romanesque style, where the vaulting is often very large and bold, *buttresses* seem to have been unknown, their place being supplied by the enormous thickness of the walls, and by the lowness of the spring of the arch, which threw much of the thrust of the main-aisle vaulting upon the vaults of the side aisles. Perhaps the hollowing out segmental spaces in the wall between the pillars (as in St Castor at Coblentz) may be considered as an artifice indicating a perception of the possibility of employing buttresses instead of a uniformly thick wall; and when we arrive at the Early German style, we find buttresses make their appearance, as in the west end and transept of Mentz, at Seligenstadt,

Heimersheim, Sinzig, &c. They are however in all these cases of small projection; are terminated usually with a plain triangular capping, and are not otherwise made conspicuous. It is not till we come to the next style (the complete or *Decorated* Gothic) that the advantage of them seems to have been fully perceived. In that style, buttresses of deep projection, and often flying-buttresses, are used in a profuse and almost wanton manner to elevate into the air clerestories of vast height and of the most open and diaphanous workmanship; and thus they are the main instruments in giving to the structures of that period the extraordinary elevation and lightness by which they are characterized.

It will, I think, appear from the account which has been given of the transition style of Germany, that the introduction of the *pointed arch* was by no means immediately accompanied by all the other changes which distinguish the Gothic from the Romanesque. The old forms and tendencies lingered long, and were replaced gradually: and the Early German architecture, for a considerable period, offers an image of the conflict and indecision of a revolution which is to end in replacing the prevailing principles by their opposites. At last the new character struggled fairly through, and freed itself from the fragments of the older system. And if we would select

the most important of the improvements by which this complete developement was effected, we must, I conceive, fix upon the introduction of the *flying-buttress.* The inventor of this exemplification of architectural and mechanical skill must be considered as having done, for the advancement of Gothic architecture, far more than the inventor of the pointed arch: or rather as having given the means of executing in their full extent, those wonderful works of which the pointed arch contained the first imperfect rudiment and suggestion.

It would hardly be too fanciful to consider the newer religious architecture as bearing the impress of its Christian birth, and exhibiting in the leading lines of its members, and the aspiring summit of its edifices, forms "whose silent finger points to heaven." And this idea becomes more striking still when we compare our religious buildings with the graceful but low and level outline of the temples of heathen antiquity, whose favorite purpose seems to be to spread along and beautify the earth which their worshippers deified. We may thus, with the poet's as well as the artist's pleasure, image to ourselves

> ——— the bulk
> Of ancient Minster lifted above the cloud
> Of the dense air which town or city breeds
> To intercept the sun's glad beams;

and leaving far below it the pillared front and

long entablature of the Grecian portico: while the *buttressed* clerestory, with its spiry pinnacles and woven tracery, hangs over the altar and the sanctuary, like a coronal upheld by the stony arms which the Christian architects learnt to make powerful and obedient for this purpose.

Sect. 3. *On the Complete Gothic Style in Germany.*

The progress of the style of which the characters have now been indicated led to the formation of the Complete Gothic. This style I shall not dwell upon; it is almost sufficient to refer to Mr Rickman's account of the Decorated English, and to the English specimens which exemplify that kind of architecture. The resemblance obtains not only in the general forms of the members and parts, but in the details also, the canopies, bases, profiles of mouldings, &c.

The earliest form of the Complete Gothic in Germany has, throughout, *geometrical tracery*. Cologne cathedral is the unrivalled glory of buildings of this class; the most splendid, and perhaps the earliest exhibition of the beauties of this style. The abbey of Altenberg, at a little distance from Cologne, now a manufactory, had a church of the same admirable style, which still exists. This is said to have been built by the same person who was the architect of

Cologne; and as it was finished, we are enabled, from the exquisite lightness and grace of its lofty interior, to form some conception of the splendid and majestic vision which would have been embodied by the completion of the original plan of Cologne. The church of Altenberg is particularly worthy of notice for the beautiful and varied forms of its window tracery, which in the interior view are seen to singular advantage, the glass being ornamented in white and grey patterns, which subdue without colouring the light*. The church of St Catharine at Oppenheim, near Worms, also in part a ruin, is another fine example of this style, and has been worthily illustrated in the magnificent work of Mr Müller. These buildings are remarkable for a purity and simplicity in their details which our Decorated Style does not always possess.

The splendid cathedral of Strasburg belongs to the same class as that at Cologne, and has some of the same peculiarities. Among other examples of prodigality of ornament, we have in both these buildings *double planes of tracery*; that is, two tracery windows or frames one behind another in the same opening; the pattern of the tracery being often

* It is melancholy to see this beautiful building tending to decay: perhaps a short time will deprive it of the advantage which its present completeness gives it over its more magnificent sister of Cologne. The roof is insufficient, and the south transept is broken down, so that the church seems marked out as a prey to speedy ruin.

different in the two. This extravagance (for it almost deserves to be so called) appears in the towers at Cologne; at Strasburg it is carried to such an extent in the west front, that the building looks as if it were placed behind a rich open screen, or in a cage of woven stone. The effect of this construction is certainly very gorgeous, but with a sacrifice of distinctness from the multiplicity and intersections of the lines. Freyburg is another great church with obvious resemblances to Strasburg; it is a very fine building, but is remarkable rather for the beauty of its composition and form, than for the delicacy of its details; nothing, however, can be more admirable than the open work of its matchless spire.

At a period a little later, we have *flowing tracery*, and this occurs with most abundant variety of form in most of the Gothic buildings: among others, in the cathedral at Freyburg, and with some very curious features in that at Strasburg.

Other buildings belonging to the complete Gothic style, are St Thomas and St Lefrau at Oberwesel; St Werner, in ruins, at Bacharach; Lorch on the opposite side of the Rhine; St Stephen, St Quintin and St Christopher at Mentz; a very beautiful church and a chapel at Kidrich near Elfeld; the cathedral at Frankfort; the church at Neustadt on the Haardt; the cathedral at Ratisbon, and the church of the Minorites, now the Halle, in that city; St Sebaldus, St Lawrence, &c. at Nuremburg;

St Mary and the Deutsche Haus at Wurzburg; and many others in almost every city in Germany.

Several of these buildings probably belong to different ages; for the separation of the pure Gothic from the styles into which it degenerated requires a particular study, and a scrupulous discrimination which it has not been my purpose at present to exercise.

CHAPTER III.

SUGGESTIONS ON THE MANNER OF MAKING ARCHITECTURAL NOTES.

SECT. 1. *On describing Churches.*

BY comparing actual buildings with descriptions conveyed in precise and determinate phraseology, such as is that of Mr Rickman, the architectural observer will become aware how completely words alone may avail to preserve and transmit distinct and adequate conceptions of an edifice. And when he has thus begun to feel the import and value of a technical language, a little practice and contrivance will enable him thus to register for himself, or for others, the principal features of any building which may attract his notice. If he should happen to visit the churches of Germany, it is hoped that the classifications and terms introduced in the preceding pages may be of service in enabling him to discover and characterize the most remarkable of their peculiarities. And should he examine the churches referred to in the previous Chapters, or other similar buildings not familiar to the English reader, of which there exist in Germany a great number possessing very interesting characters, he may, by recording

their peculiarities, contribute to throw light upon the history of architecture; for in this study, as in all others, any sound speculation must be founded on the accurate knowledge of an extensive collection of particular instances. If for this, or for any other purpose, he should make his memoranda concerning a number of churches in succession, some *method* in doing this may be of service. The subdivisions employed in the preceding descriptions indicate the points to which the attention is to be directed; and these may be made a guide in the survey of each church. But besides this general enumeration, several rules of order and selection will probably occur to the observer, tending to facilitate and expedite his labour; and such as have occurred to one person, may possibly be of some use to others. Under this impression, the following directions are offered to the reader, being such as I found it in general convenient to follow, in the course of the observations which gave rise to the preceding pages.

In describing a church, mention first what is the GENERAL STYLE of the work (Romanesque, Transition, Complete Gothic, Perpendicular, &c.) for this both conveys a general notion of its appearance, and modifies the interpretation of the terms afterwards used.

Describe next the GROUND-PLAN, and then the VAULTING: for these being given, the number and position of almost all the members is determined,

and the rest of the description will have a reference to a known arrangement of parts. In the vaulting, mention whether it is Roman vaulting, or some other form of quadripartite, or sexpartite, &c.; if quadripartite, whether both transverse and longitudinal ribs are pointed; whether in single or double compartments; the ribs where they occur, their form and mouldings; and whether the side aisles are of the same kind as the center aisle.

Describe next one COMPARTMENT of the inside, selecting that which is most frequently repeated: and noticing—first the *piers*, whether they are columns, pilasters, shafts and pier-edges, clustered shafts, or piers of clustered mouldings, and what the difference is of the *intermediate* piers, if any: their *capitals*, whether Corinthian, cushion, sculpture, upright leaves, woven foliage, &c.: the *aisles*, whether they have pillars like those of the piers, (their vaulting having been already noticed,) what are the windows, and whether the wall is ornamented;—then the *pier-arches*, whether round or pointed, and whether the arch is plain, rebated, chamfered, or with what mouldings:—then the *triforium*, whether blank, pannelled, of detached shafts with wall behind, or of openings; the openings, whether single, or double, &c.; or subdivided; and if either double or subdivided, how separated, whether by shafts, clustered shafts, pilasters, &c.; and whether with round or pointed openings:—then the *clerestory*;

the windows, whether single, in pairs, or in triads; if not single, how separated; with what mouldings; what capitals to the vaulting shafts: and throughout, what capitals there are to shafts, and what mouldings are used, when they offer any thing remarkable.

Afterwards, notice any peculiarities or deviations from this compartment which appear in the *apse*, the *intermediate compartment*, the *transepts;* in the supporting piers of the *crossing;* and at the *west end.*

In describing the EXTERIOR, the order of description does not appear to be of much consequence. The most important points are, the number and position of the *towers*, whether they are at the east, at the crossing, &c.: whether their sides end in gables, and whether these have strong or light cornices, especially the horizontal lines; how the different stories of the towers are decorated:—the *apses*, whether round or polygonal; whether the peculiar *apsidal gallery* of the Romanesque:—the finishing of the wall; whether by a corbel table with notches, round or pointed, plain or moulded; or by a cornice, balustrade, canopies, pinnacles, &c. The *buttresses* also, or their absence, should be remarked: what projection they have, what set-offs, what termination, how ornamented. *Flying buttresses* are to be noticed, and how they are stopped and supported at the lower end. Finally, the *west front* is a leading part of the building when it is ornamented, and

the *porches* in the other parts; and these portions often contain the richest and most ornamented workmanship in the whole edifice. If the church has many subordinate members externally, and is remarkable in detail, it may be proper to take notes of a single *compartment* externally, from the ground to the roof in order. The *windows* in particular will require attention; the mouldings of the window-sides, the dripstones, canopies and pannellings which accompany them: and especially the *tracery*. If any one were to observe, in succession, a great number of different windows of the complete Gothic, he would probably be led to devise some simple and technical phraseology or notation by which the form of the tracery might be conveyed; but this does not fall within the main purpose of the present Essay.

Sect. 2. *Nomenclature.*

The clearness and definiteness of an architectural description must depend upon the use of terms accurately defined and steadily employed. The phraseology introduced by Mr Rickman should be made the basis of such a language; but in applying this to foreign architecture, which he had not in view, it becomes convenient to introduce several additional words and phrases. Some of these have been made use of in the preceding pages, and they have generally been explained when first employed.

The following is a list of such words, with a few others which we have also had occasion to illustrate.

List of Technical Terms which are explained in the preceding pages.

	PAGE
Romanesque style	48
Transition. Early German	92
Gothic	49
Longitudinal and transverse vaults	52
Compartment	52
Roman vaulting	53
Diagonal rib	55
Piers. Pier-arches. Clerestory. Triforium	59
Cylindrical vault	60
Apsis	60
Crossing	61
Intermediate compartment	61 and 113
Semi-dome	61
Domical compartments	64
Principal and intermediate piers	69 and 70
Vaulting pillars	70
Pilaster masses	70
Columns. Shafts. Pillars	70
Cushion capitals	71
Longitudinal and transverse ribs or bands	73
Cells of a vault	76
Quadripartite vaulting	76
Sexpartite vaulting	76
Octopartite vaulting on a square base	78
Octopartite vaulting on an octagon base	78
Rolls (mouldings)	86
Architrave of an arch	85
Window-side	93
Concha	101
Pier of engaged shafts and pier-edges. (Fig. 13.)	103
Triforium tablet	103

PAGE
Männerchor. Mannhaus 107
Pannels on shafts 108
Fanshaped window. (Fig. 12.) 110
Escutcheon ..... 78 and 112
Transverse-triapsal churches. (Fig. 10.) 93 and 114
Parallel-triapsal churches. (Fig. 11.) 114
Notches of the corbel table 117
Notch spaces 117
Pilaster-strips 117
Apsidal gallery and cornice. (Fig. 15.) 118
Shafts set two deep 118
Gable head of a buttress 119
Rouleau at the point of an arch 122
Buttress-strips 122
Door in a projecting face 124
Double planes of tracery 129

The following terms refer to Fan-Tracery Vaulting.

Spandrel conoid 79
Complex vaulting 80
Concavo-convex vaulting 80
Diverging veins 80
Concentric bands 81
Vaulting pannels 81
Reticulating ribs 81
Ridge lozenges 81

Sect. 3. *On a Notation to express Vaulting.*

Though the different forms of vaults may be described with sufficient distinctness by means of the terms already explained, viz. by referring them to their class as quadripartite, sexpartite, &c. and by noticing whether the cells are deep or shallow, what ribs exist, whether these are pointed or round,

and of what mouldings composed; yet it is often possible to represent the vaulting more immediately and distinctly to the eye by means of a few lines drawn to indicate it. Having found the convenience and simplification which arise from such a notation, I shall here give an account of the method which I have employed.

A rude plan is drawn of one compartment of the vaulting in single lines: that is, a rectangle to represent the space occupied by the compartment, and diagonal or other lines for the ribs and intersections of vaults which occur.

The straight lines which here represent *arches*, have a small cross (×) marked on their middle if the arch is *pointed:* if it be round they have no mark.

The *cells* have a mark to represent whether they are pointed or round, the mark being a small apex (∧) turned towards the intersection of the vaults if they are pointed; and a small arc (∩) similarly situated if they are round.

The lines which represent the principal ribs are drawn double, triple, &c. according to the magnitude and number of the mouldings: the smaller ribs being represented by a smaller number of lines, and an intersection without ribs by a single line.

Thus in Plate I. under Figures 1, 2, 3, 4, 5, 7, 8, we have the symbols by which they would in this system be represented.

A dome would in this method be represented by a circle surrounding the vertex of the dome; and a portion of a dome by an arc of such a circle.

In the ground plan of Mentz, Fig. 9, of St Aposteln, Fig. 10, and of Laach, Fig. 11, the vaulting is represented upon this system. The second of these churches has had, within a short time, a vaulted cieling of lath and plaster substituted for the ancient tuf vaulting. The modern form is represented by the dotted lines.

SECT. 4. *On making Architectural Notes by means of Drawing.*

It may often happen that a very rude and imperfect sketch, such as it requires little skill to produce, will represent the form and relations of some members of architecture better and more briefly than a description in words. Where a building is thus noted, the following suggestions may be useful.

Draw a single interior compartment; either as a geometrical elevation; or, what is generally better, but more difficult, as an oblique perspective view. By this means we obtain both the forms and positions of the piers, pier arches, triforium, clerestory, and vaulting. It is sufficient to represent shafts by a single or double line, with a short transverse line for the abacus, and similar compendious representations may be employed for other parts.

If it be desirable to go into greater detail, as in good or remarkable churches it generally is, some of the following additional sketches should be added: the plan of the pier: its capital: the profile of the arch mouldings: any drawing which may be requisite to explain the combinations of shafts in the triforium and clerestory: the capitals of such shafts: the clerestory window-sides: the ornaments of the side walls: the tracery of the windows: the ends of the transept: the apse.

Externally, a general perspective view gives the grouping of the towers and their parts: the western front and the apse may also be characteristic: but such drawings are generally much more laborious and difficult than the memoranda of the interior above recommended.

In Plate IV. Fig. 12. is represented a compartment of Sinzig near Bonn, which exhibits a fan-shaped window in the clerestory.

Sect. 5. *List of Churches.*

The following are the principal German churches which I examined and noted according to the method just explained. The observations made on these, combined with what I had before noticed, have given rise to the preceding attempt to connect and discriminate these churches. In the list, R added, is to indicate that a church is principally Romanesque; G, that it is of the Gothic;

and T, that it is of the Transition Style. The most remarkable of the churches are distinguished by an asterisk. They are arranged according to their topographical succession, first ascending the Rhine, and then diverging into Bavaria and Franconia.

Near the Rhine.

COLOGNE.

* St Mary Capitoline. R.
* St Martin. R.
St George. R.
St Andrew. R. Choir. G.
* St Gereon. R. Polygon. T.
* St Aposteln. R.
St Pantaleon. R.
St Cecilia. R.
* St Cunibert. T.
St Ursula. R. Roof. G.
St Mary Lyskirchen. T.
St Severin. T.
St Peter. G.
* Cathedral. G.

BONN.

* Cathedral. T.
Apollinarisberg. R.
Remagen. T.
Hemersheim. T. } on the
* Ahrweiler. G. } Ahr.
* Sinzig. T.
* Andernach. T.
* Laach. R.

COBLENTZ.

* St Castor. R.
Notre Dame. T.
St Florian. R.
St John. T.
Neiderlahnstein.
* Boppart. T.
Oberwesel.
St Lefrau. G.
St Thomas. G.
Bacharach.
* Lutheran Church. T.
* St Werner. G.
Lorch. G.
* Clemenskirche. R.

MENTZ.

* Cathedral. East end R.
West T.
St Stephen. G.
St Quintin. G.
St Christopher. G.

RHEINGAU.

Winkle. G.
Johannisberg. R.
Eberbach near Elfeld.
* Large Abbey Church. R.
* Small do. or Hall? T.
* Cellars do. R.
Kidrich near Elfeld.
* Church. G.
* St Michael's Chapel. G.
Elfeld. G.

FRANKFORT.

Cathedral. G.
St Leonhard. G. Apse. T.
Seligenstadt. } on the
Aschaffenburg. } Maine.
Gelnhausen, on the Kinzig.
* Oppenheim. G.
Lorsch. R.

WORMS.

* Cathedral. East end, R. West, T.
* St Paul. R. and T.
* St Martin. R.

Limburg on the Haardt.
Abbey Church. R.
Neustadt. G.

SPIRES.

* Cathedral. R.
Schwarzach. R.

STRASBURG.

* Cathedral. G.
St Stephen. R.
St Thomas. T.

FREYBURG.

* Cathedral.

In Bavaria.

Morsburg.

LANDSHUT.

St Eudoch. G.
St Martin. G.
Holy Ghost. G.

RATISBON.

* Schottenkirche. R.
St Emmeran. R.
Obermünster. R. Porch, T.
Niedermünster. R.
Minorites. G.
* Cathedral. G.
Old Cathedral. R.

NUREMBERG.

St Laurence. G.
* St Ottmar's Chapel. R.
* St Margeret's —— R.
* St Eucharius' —— T.
* St Sebaldus. G. West end, T.

BAMBERG.

* Cathedral. T.
Oberpfarrkirche. G.
St Stephen, a tower. R.

Ebrach.

* Large Abbey Church. T. (Inside modernized).
Small do. T.

WURZBURG.

St Burckhard. R.
Schottenkirche. R.
Deutsche Haus. G.
Domkirche. R. Inside modernized.
Neumünster. R. Inside do.
St Mary. G.

On the Lahn.

LIMBURG.

* Cathedral. T.
Bishop's Chapel. G.

Ditkirchen. R.
Arnstein. T.
Ems. R.

In Switzerland.

Schaffhausen (old Church). R.
* Zurich. R.
Lucerne. R.
Bern. G.

ARCHITECTURAL AND HISTORICAL

REMARKS AND ADDITIONS,

BY

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[APPENDED TO KLEIN'S RHINE JOURNEY FROM STRASBURG TO ROTTERDAM.]

—Magnam stragem ejusmodi lapidibus temporum edacitas intulit; majorem bellorum furor; *maximam incuria et barbaries indoctorum hominum, etiam in ipso hoc nostro cultiori ævo.*

HONTHEIM, *Gesta Trev.*

ARCHITECTURAL AND HISTORICAL

REMARKS AND ADDITIONS.

As in all places where old buildings still exist, it is customary to esteem them older than they really are, and to shew them to travellers as such, so it is on the Rhine. People dream of Roman works and heathen temples. and because, on account of the excellence of the building-materials, there are more remains here than anywhere else, they take everything to be ancient, which war, and fire, and old and new discoverers, have spared. But, in truth, at the expulsion of the Romans their works were utterly destroyed, in the same manner as were the works of the Carlovingian time by the incursion of the Normans. But those buildings which in the tenth century were renovated, or built anew, as also the innumerable ecclesiastical structures of the eleventh and twelfth centuries, were for the most part destroyed in that ruinous contest between Philip of Hohenstaufen and Otho of Brunswick, for the possession of the throne of the empire, and which afflicted our country from the year 1198 to 1206. We may especially notice, that when Otho was besieged by Philip at Cologne, during eighteen months, (dating from 1205), the whole neighbourhood was laid

waste with destructive rage; and we may remark, that already in 1199 were burnt the cities of Coblentz, Andernach, Sinzig, Remagen, and Bonn. The writer of these remarks, himself a great lover of old *architecture*, has devoted many years to the study of the history and construction of the architectural buildings of his native land, and thinks that a few details may be interesting to those travellers who love the art, as well as to antiquarian connoisseurs in general*. A more extended work, quoting the authorities which support the author's opinions, may perhaps be given hereafter. [The following Remarks refer to places mentioned in Klein's *Rheinreise;* and as no English translation of that work exists, the corresponding pages of the German edition are given, as in the original German Remarks.]

MAYENCE.—*Page* 2. The mistaken opinion that all plaster walls (*Gussmauern*) are Roman works, and that the stones were first built up dry, and afterwards plastered with fluid mortar, is so generally diffused, and, on the Rhine, leads to so many false historical conclusions, that the writer thinks himself obliged to begin with the refutation of both errors.

* He who is tolerably well acquainted with the history of our Architecture, is often particularly annoyed when travelling by coach or by steam-boat, to find it necessary at each moment, in compliance with truth, to correct one of the many tales which hosts, pilots, postmasters, and travellers, serve up to their guests. Even in Schreiber's Rhine Journey there is a host of architectural as well as historical errors. The former may in great measure be referred to the inaccurate statements of his correspondents:—some of the latter are amusing —for example, page 361, we read, that although Bonn was twice destroyed by the Normans (882), yet that the building of the Minster by the Empress Helena (332), had the instant effect of creating a new town.

This description of masonry, which Vitruvius (Book II. Chap. 8) describes under the name *Emplecton*, consists in this:—The two external sides of the wall are built up in layers, with selected quarry-stones, (that is, such as have plane surfaces), and the space between these two sides of the wall is filled up with rubble and plenty of mortar, without much regularity, and, according to the better Greek method, by degrees or stages; that is, the rubble and mortar are thrown in at the time the two sides of the wall are being built up, and are frequently made level with them; but, according to the inferior method, the walls are allowed to attain a certain height before the central space is filled up. By the first method, and with the assistance of good mortar *, a well-compacted durable wall was produced. By the latter method, the materials were evidently not so well bound together, and thus, instead of being one solid mass, the wall was, properly speaking, three separate walls;—viz. the two outsides and the intervening part; and these not being cemented together, but only placed as it were in contact, the parts were liable in time to separate, and, accordingly, large pieces fell away from time to time, as may be seen in the Friederburg at Rudesheim. The occurrence of this kind of masonry proves that it was known long after the time of the Romans; for, up to the fifteenth century, nearly all the old walls near the Rhine were

* The mortar was here generally good, for in the olden time, when wood was abundant, it was customary to burn the chalk or limestone on the building ground; to use river-gravel as sand, or, in the absence of that, to improve bad sand by the addition of broken tiles. But, in old wall-work bad mortar is by no means rare.

constructed after this method; as may be seen in numerous ruined castles. Roman walls are generally to be recognized thus:—between the layers of quarried stone there extend at intervals (*von strecke zu strecke*) double, and sometimes quadruple, layers of bricks, which, like the Roman tiles, are easily distinguishable from modern ones, by their close fine grain, and their deep red colour. Erroneous, likewise, is the opinion that near the Rhine, or in the Rhenish provinces especially, a large number of Roman monuments still exist. We must, indeed, except those well-known remains at and near Treves, which undoubtedly owe their origin to the time of Constantine. Only a few remains of this kind at present exist upon the earth; many there certainly are beneath its surface, as appears from the results of almost all extensive excavations, which bring to light Roman tiles, gravestones, funeral urns, &c. A few remains of Roman roads, as also of an over-arched canal between Treves and Cologne, also exist. An excellent account of these roads, accompanied by a map, may be found in the Transactions of the Berlin Society of Arts (*in den Verhandlungen des Gewerbevereins zu Berlin*,) for the year 1832. The information here given is extracted from the original account by Major Schmidt, who has promised to give a complete work on the subject. Equally rare are the monuments of the Carlovingian time; and we can refer to none except to the old portions of the Cathedral at Aix la Chapelle, the portico of the monastery formerly existing at Lorsch, and some mutilated columns from the palace of Charlemagne at Ingelheim.

Far richer is our country in specimens which date from the year 1000; and perhaps no other land possesses such splendid examples.

Page 9. The Cathedral, six times injured, more or less, by fire, but after each burning restored or enlarged in the style of the time, is, on this account, one of the most remarkable buildings in the history of art. The recent history and description of this structure, by J. Wetter, contains so much valuable and novel information respecting it, as well as other buildings, that no lover of old architecture should pass it by unread; we need not, therefore, add much on the subject here. The eastern choir, the door of which has been already given by Moller, in his Denkmaehler, belongs doubtless to the original building which Archbishop Willigis began in the year 978, and consecrated in 1009, and which was burnt down on the very day of its consecration. The two eastern towers, and the contiguous portion of the nave, are said to belong to the building which was begun immediately afterwards, but not finished till 1037. In the year 1137 the church was again consumed by fire, and yet again in 1191; after which the walls of the nave and its arches were restored; and these already afford symptoms of the pointed arch. It may be seen in a more improved and extended form in the western choir and transept, begun in 1200, and finished 1239. The enlargement of the Cathedral by the addition of side chapels, bears a later date—about 1260; those on the northern side were finished about 1291, and on the southern side about 1332. A cloister (*kreuzgang*) was already in 1243 built and consecrated by Archbishop

Siegfried, but the present one was built by Archbishop Conrad, between 1397 and 1412; to which also belongs the beautiful door, (also given by Moller, plate 54). A more ancient one near this, in the adjoining Chapter-house, belongs most likely to the restoration which succeeded the conflagration in 1191. In 1756 another fire destroyed the roof of the principal tower, (the western,) including all the smaller towers; after which they were all, as well as the whole of the west end, furnished with fire-proof roofs of stone, the construction of which is peculiarly interesting to architects. During the siege in 1793 a sixth fire consumed every combustible substance throughout the building: it was then furnished with a wretched temporary roof of planks, and during ten years it was used as a magazine. Attempts were then made to level the whole of it. In answer to an application made by the Bishop, Napoleon, in 1803, ordered the restoration of the Cathedral, and the next year assigned to it the annual revenue of 12,000 francs; besides which he contributed 6000 francs towards the building expenses, and he also gave three large cannons to be cast into four new bells. From this time, and according as means would allow, much diligence has been used in the restoration of the building; and especially since Mentz has been added to the Grand Duchy of Hesse, the direction of the works has been assigned to the chief architect Moller, whose correct knowledge and judgment of the architecture of the middle ages no one can gainsay. To him alone do we owe the ingenious and singular construction of the iron cupola. Moreover, the whole restoration may be truly estimated as the best of its

kind, and the interior of the Cathedral produces a very agreeable impression on the mind.

Lastly, very remarkable is the double chapel of St Gothard, situated at the end of the north-western transept. It was built between 1135 and 1136, and is therefore of especial value, as illustrating the style of that time. It is indeed to be lamented that a Christian Church government, instead of keeping it in proper repair, should, for the sake of a paltry rent of a few dollars, allow it to be used as a leather warehouse.

St Stephen's, originally built entirely of wood by Archbishop Willigis (1011), was afterwards destroyed, and the present remarkably beautiful church, with three naves of almost equal height, (an uncommon occurrence on the Rhine), was begun in 1317. The adjoining cloister, originating perhaps about the middle of the fifteenth century, has elegant arches with pendent key-stones; an uncommon circumstance hereabouts.

St Quintin is nearly coeval with St Stephen, as also is St Emmeran with the cloister above mentioned. The church dedicated to St Peter, belonging to the middle of the last century, is peculiarly remarkable on account of the noble proportions displayed in its interior, (notwithstanding the detestable style which prevailed at that period), as also for the boldness of its construction. It also has three naves of almost equal height:—the middle one 36 feet broad in the clear, and 65 feet high; the side aisles 14 feet broad, from which the middle nave is separated by slender, square, mishapen pillars, 20 feet apart; the whole surmounted by massive vaulting 8 or

9 inches thick, of tufa, between walls of only 4 feet thickness, and not supported by buttresses*.

Page 9. The library in Mentz is rich in stone monuments of the Roman and of the middle ages. Especially remarkable are some capitals from the palace of Charlemagne at Ingelheim. (Another capital lies in the court-yard of the post-house there). These capitals, as also some capitals of pilasters at the Cathedral of Aix la Chapelle, and the well-known portico at Lorsch, given by MOLLER in his *German Monuments*, prove sufficiently that at that time buildings were erected entirely in the Roman style, and not in the so-called Byzantine

* The dimensions here and hereafter employed are according to the Rhenish standard measure: therefore every foot is equal to 139.13 Parisian lines, such being in 1816 received by all Prussia as the standard for the measurement of land. During several years, in which the author has been engaged in the measurement of numerous old buildings, he has frequently remarked that their dimensions must have been regulated by the length of this foot, since they all consist of round numbers. This was the more surprising to him, because, with the exception of Brandenburg, Denmark, and Leyden, this standard was not in use either on the Rhine, or anywhere else, and everywhere on the Rhine the length of the foot fluctuated between 127 and 129 Parisian lines. He was still more surprised at the discovery recently made by him, that even the Roman monuments at Treves display the same phenomenon, although it is known that the old Roman foot was equivalent to from 130 to 132 Parisian lines. Should this mysterious Rhenish foot, adopted by the Romans, and by the architects of so many later works (as for example the churches of St Castor, Florian, and the Jesuits, at Coblentz; the church at Limburg on the Hardt, belonging to the year 1030; the castle at Heidelburg, and numerous others,) but which foot was however lost at some unknown and distant period;—should this foot be the measure of the ancient Greeks, which, according to Eytelwein, (Measures and Weights, Berlin, 1810,) contained from 136 to 142 lines, it becomes therefore equivalent to ours of 139.13, and the buildings at Treves, belonging to the age of Constantine, may probably have been built by Greek architects.

style. In the court-yard of the library are also some sculptures worthy of notice, from the Merchant's Hall at Mentz, described by Moller, which has unfortunately been pulled down.

Page 11. The Rhine bridge was designed by order of Napoleon; and when the model of a wooden one (still preserved in the Museum) was submitted to him, he declared "it shall not be built of wood, but entirely of stone:—we want not a bridge of matches, but a monument of granite."

It is desirable that the travelling Architect should inspect the Protestant Church and the new Austrian barracks at Castel. He should also visit the ruins of the new church, fallen down, and the *Kursaal* at Wiesbaden, and return by Bieberich, where he will find the castle and garden worthy of notice; the latter containing a modern antique castle, and some very pretty little bridges.

INGELHEIM.—*Page* 18. Even under the Merovingian dynasty palaces were erected at Strasburg, Spires, Worms, Mentz, Andernach, and Aix la Chapelle. The father and grandfather of Charlemagne built some of them near the river Maas at Heristall and Jopile; the grandfather of Charlemagne built that at Nimeguen, and also the one here, (apparently about the year 770), which he generally inhabited.

Ermoldus Nigellius, the contemporary biographer of Louis the Pious, sings its magnificence*, and describes

* Est locus ille situs rapidi prope flumina Rheni,
Ornatus variis cultibus et dapibus;
Quo domus alta patet centum perfixa columnis,
Quo reditus varii, tectaque multimoda

the series of pictures in the palace, which begin with the creation of the world, and end with the ascension of the Redeemer; they also include mythological subjects, and the deeds of Charlemagne. He also describes the pictures in the Church there—the subjects on the right side being taken from the Old Testament, and on the left side from the New. There is still extant a letter of Pope Hadrian, of the year 784, acceding to the request of the Emperor to part with certain works in mosaic, marble, &c., from his palace at Ravenna. The succeeding Emperor lived generally here till towards the year 1000. Then the building gradually decayed, until the Emperor Frederick Barbarossa restored it. To him is most probably due the church renovated by the Emperor Charles IV. in 1347, who also founded some prebendaries. This Church in 1766 stood in ruins*. Still

Mille aditus, reditus, millena claustra domorum
Arte magistrorum artificumque manu.
Templa Dei summo constant operata metallo,
Areati postes, aurea ostiola
Inclita gesta Dei, series memoranda virorum
Pictura insigni, quo relegente patent.

The anonymous Saxon poet, who lived under the Emperor Arsulph, says in his Life of Charlemagne,

Ingeleriheim dictus locus est ubi condidit aulam
Ætas cui vidit nostra parem minime,
Ad quæ marmoreas præstabat Roma columnas
Quædam præcipuas pulchra Ravenne dedit.

* The first volume of the Acta Academiæ Palatinæ contains a carefully written detail of all that is known respecting this palace, with views of the scanty remains of walls belonging to the same, as well as of the church mentioned in the text, and of a tomb erected therein representing a crowned female figure, supposed to be the effigy of one of the four wives of Charlemagne; but the decorations, which are in the pointed style, evidently refer it to a later time, probably to that of the restoration mentioned in the text.

more recently it was converted into a Protestant Church, but the old choir and transept are still shown. The Palace itself was burnt down in 1270 by the Emperor Richard, but a strong castle was still here in 1504, when, being besieged without effect, the city was burnt. At present no part of the palace remains except the church and the above-mentioned capital in the court of the post-house. The columns near the brook at the castle of Heidelburg, (the German Alhambra,) said to be derived from hence, do not however consist of foreign granite, but, like the Devil's Pillar before the cathedral in Treves, and all those known to the author in this country, are from the well-known quarry in the Odenwald, where lies also the little Giant Pillar.

KIDRICH AND ERBACH.—*Page* 24. Admirers of old architecture ought to visit both places. The church at Kidrich* is an excellent and complete specimen of the style which prevailed towards the end of the fifteenth century: also the somewhat older chapel there, with an ingenious staircase, and a "steinhelm," that is, a stone cupola, belonging to the best of its kind. In the cathedral at Mentz, the styles of several centuries are united in one and the same building, the exterior effect of which is by no means agreeable; at Erbach, on the other hand, those various styles are to be seen in single buildings, of which each example is a distinguished one. First, there is the old church with three naves under one roof, and very slender columns, apparently belonging to the

* The pulpit belongs to the year 1491; the benches to 1510, and were made by Erhard Sallkener, of Abensperrek, who made similar ones for Ganodernheim.

time of its foundation in the year 1131; the vaulting only belonging to a later period. Then there is the old dormitory, unfortunately partitioned by many walls. Also the more recently consecrated church of 1186; the later dormitory built sometime between 1300 and 1400. Finally, the chapter-house, at present used as a wood-house, certainly belonging to between 1400 and 1500. Very remarkable, nay, perhaps peculiar to this place, is the arrangement of the columns in that more recent dormitory (the dimensions of which are 232 feet by 42 feet in the clear). From short, strong, round columns, with manifold capitals, spring high pointed arch vaults 20 feet wide: every one of the pillars, of which there are ten in a row, exceeds the preceding one in height: the first is 5 ft. 3 in. in height and the last 6 ft. 5 in., so that if you stand near this last, the diminishing of the rest, which perspective causes, is increased, and consequently the whole space appears longer; but if you stand at the other end, the columns all appear of the same height. Underneath is a cellar of equal beauty, containing some of the best wines of Germany, of which the most excellent are perhaps the finest in the world; they grow in the Steinberg situated close by, where 100 acres of vineyard, inclosed by a wall, are cultivated with the greatest care. The united cloister buildings are used as a Bedlam and House of Correction for the Duchy of Nassau, both of which belong to the best of their kind.

MITTELHEIM AND JOHANNISBERG.—*Page 23.* The churches there have both three naves, the middle nave supported by single pillars, with a transept, and a ceiling of wood, and terminating in a choir and two side niches.

The latter has been, alas! modernized both within and without. That at Mittelheim, on the contrary, remains almost entirely unchanged. A low tower stands over the intersection of the nave and transept: the porch is most simple: its vaulting, according to the Roman manner, is of stones alternately of different colours. It was built about 1140, and the church at Johannisberg perhaps somewhat earlier, since as early as 1106 Archbishop Ruthard of Mentz founded a monastery here, under the name of Bishopsberg, intended as an atonement for a murder committed by one of his relations on a Jew. In 1130 Archbishop Adelbert converted it into an abbey, and mentions the consecration of the church as having been performed.

Eibingen.—*Page* 26. A beautiful baptismal font, belonging to the fifteenth century, has been taken from the old church and placed in the new one.

Rüdesheim.—*Page* 29. The churches here, like most of those in the Rhenish provinces (*Rheingau*), belong to the fifteenth century, and are more or less elegant and worthy of notice. The vaulting of this church is especially well adapted to illustrate the system by which these old light church vaults were constructed merely by hand (*aus freier hand*), i. e. simply by means of supporting ribs (*Gräten*), according to a very ingenious method which the author was so fortunate as to rediscover, and of which he had an opportunity of proving the applicability in the erection of several ecclesiastical structures in Treis, Cobern, and Valwig, and which he afterwards described in detail in the fourth part of Crell's Architectural Journal, which account was copied in the

Journal du Genie civil (Paris 1831), as also in the Journal of the Royal Institution (London 1831.)

The Niederburg is among the most remarkable of all monuments. It was evidently a castle, and indeed one of the largest, composed of three vaulted stories. The exterior of the gable walls near the open corner bear evident traces that at the time of their erection an older building stood here, against which the new one was built. The whole forms a quadrangle, of 105 feet long by 83 feet broad, and rather more than 60 feet high, enclosing a narrow inner court-yard. One angle, formed by two lines of 35 feet and 28 feet, constituting the space occupied by the older building, is wanting. In the time of Merian (about 1640) it was in existence, as also a small tower upon the more recent building. The basement contains small vaulted rooms enclosed by strong walls from 8 to 14 feet in thickness, built of hard grey-wacké with rubble work between regular horizontal external sides, of which the greater part on the western side has become loosened. Very narrow steps conduct to both the upper stories, where we find the inner rooms larger, and even two side saloons, or rather halls, of about 80 feet in mean length and 14 feet breadth, and from 14 to 17 feet high, with a stone seat projecting from the masonry, extending along both sides. Every thing is vaulted, and indeed in both the under stories with cylindrical vaults, and in the upper one with very peculiar cross-vaults between projecting transverse ribs: the diagonal ribs as well as the side walls (*schildmauern*) and transverse ribs present half circles, which were covered in with straight boards, and upon these the vaulting

(Kappen) was laid. The crown lines are therefore not horizontal, but inclining upwards from all sides in a very marked manner to the middle; a form which adds considerably to the strength of such arches, and divides more equally their thrust on the outer walls. On the Rhine side are still displayed some traces of a parapet (mauer-krönung), with small arches which apparently bore battlements. The few windows are narrow, low, closed with arches, and near the inner court-yard for the most part coupled. At the erection of the building two chimneys were let into the wall of the saloons: these rest upon pillars, the feet of which already afford examples of profiled corner leaves, which about the year 1050 only occur near the Rhine as shapeless masses, so that the building may rather be said to have originated between 1050 and 1100, especially as the cross vaults before described, occur at a later period.

BINGEN.—*Page* 37. The ruined fort Klopp has no more pretensions to be a Roman castle than the preceding. This ruin is of very little extent. The bridge was built by Archbishop Willigis (who d. 1011), but has been several times restored. The baptismal font in the parish church, which was built after the great fire of 1403, belongs also to a later time. This church, like that at Lorch and the church of the Carmelites at Boppard, was enlarged about the year 1500 by the addition of a side aisle, whilst they opened the walls between the buttresses, and allowed these to stand as pillars. The additional side nave is double, that is, it is separated by means of a row of slender columns into two rows of elegant vaulting, with complicated net-work of ribs. On the west

and south doors are raised pannels, with beautiful sculptures. Of the church at Ruprechtsberg, built about 1140, the only remains are the fundamental parts of the choir-niches, and the lower part of the southern tower. These, on account of their simplicity, are worthy of notice. In 1632 the monastery was burnt down by the Swedes: as represented by Merian it appears to have been a fine ruin. It was levelled in 1800. About half an hour's walk up the Nahe to Münster will bring you to a small church with sharp pointed arches, a stone-roofed tower, and some well-executed paintings on glass. Still further up the river, near Bretzenheim, are some curious remains of a church which was sold during the last year. This church is scooped in the sandstone rock, in which also are excavated some hermits' cells.

EHRENFELS.—*Page* 45. Was built by the Vicegerent of Mentz, Philip von Bolanden, under Archbishop Siegfried, and in 1228 resigned to the church by the widow of the builder.

VAUTSBERG.—*Page* 49. Properly Faizberg. Originally only an unimportant two-storied building, 40 feet long, 20 feet deep in the clear, with four rooms; this would, of course, be unfit for the abode of a prince, if restored according to the old plan. The author of these remarks furnished two new plans, according to the larger of which a knightly hall was proposed to be built: the smaller plan was however accepted; according to which the house was arranged as it now stands, and the projecting round tower at the side was put in the place of an old gable, the remnant of an old wooden building on the present terrace. The execution of the

work proceeded under the author's directions up to the roofing in: he has had nothing to do with the internal decorations, the battlements of the new tower, the porter's lodge, and the drawbridge.

St Clement's Church.—*Page* 50. This is by no means uninteresting. It is also a subject for congratulation that it has been again completely restored through the piety of the princess Friedrica, the noble and revered spouse of the illustrious possessor of Rheinstein.

Oberdiebach.—*Page* 57. The neat church there contains a pulpit made of wrought iron.

Bacharach.—*Page* 59. There was certainly till very lately an altar to Bacchus here; but it was not that rock in the Rhine, but a company of topers called the Brother Tipplers. They possessed some vineyards, elected a president, and every year feasted away the produce of their property. Their amended statutes of the year 1550 still exist. Three similar institutions were existing in the neighbouring Steeg. Fishing also appears to have been celebrated here in the olden times; for so early as 871 the privilege of fishing was already granted by king Lewis to the abbey Prüm. The ruins of St Werner's Church are most elegant. This church consisted properly of only a triple choir without any nave, on the place of which the older chapel appears to have stood, and was apparently enlarged by the addition of these cloisters after the canonization of the bones of St Werner*, in the year 1428. The profiles of the windows

* The chronicle relates of him how he, a poor boy of Wamrodd, being taken by the Jews at Oberwesel, 1285, suffered martyrdom at their hands: and how the body was ordered to be conveyed to Mentz, but

and arches are wondrously beautiful. It appears still complete in the view of the siege by Stahleck, engraved in Merian's work. The parish-church was perhaps built about 1200. It contains much that is remarkable and beautiful: such, for example as the elongated key-stones of the vaults and the south porch.

THE PFALZ IN THE RHINE.—*Page* 61. Its interior is altogether unimportant. It doubtless owes its origin to the Emperor Louis of Bavaria, inasmuch as the Bull of Pope John XXII. of the year 1326, plainly says: *quod Ludovicus olim Dux Bavariæ suos enormes et detestandos excessus, quorum occasione per diversos processus nostros diversis temporibus de fratrum nostrorum consilio, presente multitudine copiosa fidelium habitos excommunicationis vinculo innodatus*—does not cease to levy heavy duties at *Kuve* (Caub) on goods carried through that place, and moreover had built for that purpose *turrim fortissimam* on an island in the Rhine. (Günther, *Cod. Diplom.*) The present roofing of this tower, as also that of the other buildings, is very offensive, and it is very much to be desired that all the roofs should be turned inwards, and the old battlemented parapets restored to the walls and towers, which might be done at a very moderate expense, and the consequence would be

but when the boat had reached Bacharach, it remained immoveable in spite of all the exertions of the rowers, (at the spot where in later times the cloister of Windesbach was erected, of which the church was destroyed even to the very walls: it stood at the upper part of Bacharach, near the highway.) The Jews were therefore compelled to conceal the body on the shore. It was discovered here, placed in the church of St Guibertus, the present parish-church, and having displayed miraculous power, it was placed in a chapel built on purpose for its reception.

that the whole would present the aspect of a most noble and picturesque fort.

OBERWESEL.—*Page* 56. The scanty remains of the insignificant town-hall have disappeared many years since, but all the four churches are worth seeing. The tower of the very admirable collegiate-church, that of St Martin's church, and also that of the parish-church at Bacharach, remind us by their numerous pinnacles of the well-known style of the English churches. The high altar, consecrated together with the church in 1331, several monuments and other images, are equally remarkable. The gallery between the choir and the nave, called a Lettner (Rood-loft), is the only one in this country which, so far as the author knows, has continued to the present time*. The foliage of the capitals belongs to the best of its kind; also some parts of the stalls, as also both portals, of which the western still retains the doors originally richly decorated with iron-work. All this is remarkably beautiful; and we may reckon as peculiar the vaulting of the cloister, as is also an enlargement of the middle nave by full three feet towards the east, and of the side aisles towards the west. The buttresses of the nave of the church, like those of the church at Simmern, stand within. The ruins of the Franciscan church display an uncommon construction. A secondary nave has been added, and is separated from the principal nave by pillars placed diagonally. The mutilated Franciscan church at Coblentz, and the one at Andernach, which since the year 1816 has been used as a stable, have the same construction. Lastly, we may mention as worthy of attention

* There was one also at Sobernheim, but it was pulled down some years ago.

St Werner's and St Martin's churches (the latter in 1333 was raised to a collegiate establishment); the solitary old gate near the cathedral church, and the lofty tower at the lower end of the town.

Saint Goar.—*Page* 73. The arched tomb or crypt under the cathedral-church, where formerly reposed the bones of St Goar, is certainly not the original one. This saint, born in Aquitania, first resided as a hermit near the Lahn, afterwards in a cave near St Goar, until on the site of the present church he built a cell and a little chapel, and died in 647 (some say so early as 575); after which the pilgrimages to his wonder-working grave raised the cell into great repute, and also gave an origin and a name to the town. Bertradana, wife of king Pepin, was on one occasion proceeding from the cloister of Prüm (endowed by her grandmother Bertrada) up the Rhine in the direction of Worms, and being dissatisfied with the hospitality of the cell of St Goar, then placed under the management of one Erping, complained thereof to her husband. The king, displeased that hospitality should be forgotten in the very place where the Saint encouraged it so well, immediately presented the cell to the abbot Asverus of Prüm, who commenced the building of a new church, which, however, was not completed until the time of Charlemagne. It was consecrated by Archbishop Lullus of Mentz (787). This church was destroyed by fire in 1137. A third church was afterwards erected, to which belongs the crypt under the present church, (the fourth), which was built between 1441 and 1469.

The fortifications of the Rheinfels show some improvement in this art over the older ones. Some remains

of old buildings, as well as the castle-chapel, endowed in 1315, are also worth inspecting.

REICHENBERG.—*Page* 76. Built in the year 1284, and certainly conquered and destroyed by the Emperor Albert; but a new building (as the Chronicle says, in the Asiatic style, i. e. without roofs) was commenced in 1319 with the assistance of the Elector Baldwin of Treves, and possessed by him as a fief. The death of the Count William, in 1331, disappointed his plan of founding a town here, for which a license had been granted by the Emperor Lewis in 1324: this document mentions the castle as being already built, and it was occupied till recently. This ruin is as admirable as it is peculiar: a portal in the castle-yard reminds us of the Moorish style. The interior of a building closed in with lofty and elegant pointed arches, over spindle-shaped columns, the entablatures of which are destroyed, is most picturesque and noble. The travelling architect may be recommended to pay a visit to it, through the Swiss valley, as it is called, and to return over Patersberg: it will be seen at Reichenberg that it is possible, by means of good long grained stones, to do without any expensive workmanship.

THURNBERG.—*Page* 77. Commenced by Archbishop Boemund, finished by his successor Cuno 1388, and only in later times abandoned, not destroyed. Thus it would be better capable of being restored than many other forts, and at little expense, since all the masonry is in good preservation, and only the wood work wanting. The interior construction can be understood perfectly, even the old chimneys still exist, and the former living rooms are not too small to be occupied.

HIRZENACH.—*Page* 79. A cell here was presented by the Emperors Henry III. and IV. to the foundation of St Martin in Worms, for the erection of a monastery, and this gift was confirmed by Archbishop Frederick of Cologne in 1110. From this time the church may date its origin as a basilica, to which was added in 1300 a choir with profiles (profilirungen) of a peculiar and beautiful form. Of the two small round towers near it, the lower part only remains. Their completion, which would not be very expensive, would make the church one of the most elegant.

BORNHOFEN.—*Page* 82. The church has, like those at Clotten, Kempenich, and Namedy, two naves separated by a row of slender pillars. The enlargement mentioned in the *Rhein-reise* consists in the addition of a chapel and Portico, the latter of a remarkably bold construction. It is open on three sides, two of which have one arched opening, and the front sides three such: these openings are twelve feet wide in the clear, between pillars not quite two feet thick and seven feet high, standing upon a plinth wall three feet high, not braced in any visible manner to each other, or to the back wall, so that both the corner pillars have to bear the whole thrust of the arches which abut upon them.

BOPPARD.—*Page* 82. The old Kaiserburg did not stand upon the site of the present one, but at the lower part of the town. The parish-church was granted as a fief to the foundation of St Martin's in Worms. It may be possible that the Salic Henries built a church here, but not the present one, which at all events is much more modern, nay, according to a manuscript record,

the date of its erection is 1200. The choir may belong to the middle of the thirteenth century; it is an excellent specimen of the transition style. One may likewise observe in the church an older restoration, and to it belongs most likely the whole of the singular vaulting, a pointed cylindrical arch, with rolls set on fanwise as ribs. The whole arrangement of the west front appears peculiar, as also the arched cornice under the roof, but still more so the small archivolts placed upon corbels over the lower-windows, which may sometimes be seen here over the doors of the smaller country churches; but are seen over windows only in England, where they are called *dripstones*. Lastly, we find galleries (Emporen) here over the side *aisles*, (also called Männerchöre):— they are very rare in other places, but common enough in our country*. The church of the Carmelites contained some very fine painted glass, but it was thrown away in 1818. This church has had a side nave added to it, as at Bingen and Lorch; richly carved choir-seats and an elegant triple seat, decorated with a canopy situated near the high altar. Opposite to it is a beautiful bas-relief in marble. The Franciscan church was begun 1626, and finished 1662.

MARKSBURG.—*Page* 89. Nothing Roman in it, and indeed nothing of any consequence.

OBERLAHNSTEIN.—*Page* 92. Opposite the west end

* For example: at St Leonard's in Frankfort, Limburg, Kiderich, Bacharach, St Goar, St John at Neiderlahnstein, Liebfranen at Coblentz, Ems, Gäls, Vallendar, Andernach, Oberbreisig, Sinzig, Himersheim, Ahrweiler, St Peter, St Ursula, Marie Lyskirchen and Columba at Cologne, St Quirin at Neuss, and lastly, the Jesuits' churches at Coblentz, Cologne, Düsseldorf, Paderborn and Antwerp.

of the church is an old, and, alas! sadly injured bas-relief in the wall, which apparently stood over an older door. The inner court-yard of the castle is worth seeing.

KÖNIGSTAHL.—*Page* 94. A projecting seat ran round seven sides of the rectangle, because we find the entrance steps at the eighth. The Emperor Charles IV. (1376) ordered the citizens of Rhens to build it in these words;—"in the garden and at the town where the electors sometimes used to meet to choose a Romish king, and to transact their other affairs, there construct a seat, preserve it and keep it for ever."

STOLZENFELS.—*Page* 96. The largest of all the Rhenish forts. It was built by Archbishop Arnold, with money borrowed from the foundation of St Castor in Coblentz. In 1436 it became the residence of the discharged Elector Ulrich Von Manderscheid. The so-called Archbishop Werner also had his abode generally here*. From his ancestor Cuno he had inherited much treasure, but left none to his successor. There is a tradition that his treasures were buried here. Archbishop John (d. 1503) nevertheless sought for them in vain. As the collected apartments which the fort contained are still plainly recognizable, another proof is hereby afforded of the confined nature of all the princely dwellings of that period. Accordingly, this fort might in preference to many others be restored, that is, provided the restoration be done faithfully, with no additions or alterations; nor need it be converted into a villa, in the style of the middle

* The Limburg Chronicle says: "This Archbishop Werner had a great fondness for the castle; therefore the letters which came from thence to our foundation are commonly dated "Stolzenfels."

ages, as that near Rheinstein necessarily was; but let it be made to reappear as it was in olden time: the rooms are numerous, and also sufficiently large for the purposes of a plain princely country dwelling. Moreover, the renovation of the pinnacles of all the walls and towers, in addition to the very favourable environs, would alone suffice to convert the whole into one of the most excellent of knightly forts. A view of Stolzenfels and Lahneck before the spoliation of 1689 is to be found in Matth. Merian's Topographia Archiep. Mogunt. Published in 1646. Trev. and Col. p. 24.

THE CHURCH OF ST JOHN.—*Page* 99. The large tower is the older of the two: the smaller one is built inappropriately upon three two-foot walls, of later date than the church. The building fell into ruins during the course of a lawsuit (which lasted 40 years) instituted against the possessor of the tithes, for refusing to keep it in repair. Its choir is on the outside enclosed in the form of a square; within is a niche placed upon projecting arched corners. The vaulting of the sacristy is remarkable: it consists of an elliptical cross vault, the edges forming half circles, which are produced in horizontal lines towards all four sides, and thus the *shields* (spaces on the walls) become semi-ellipses. The *männer chors*, like those in the churches at Ems and Vallendar, are covered only by the roof. Their date is unknown, but may perhaps be referred to about 1100, since it is evident that the little tower belongs to the end of the twelfth or to the beginning of the thirteenth century.

COBLENTZ.—*Page* 104. Apparently one of the fifty castles which Drusus built near the Rhine about the

year 9 before Christ. It is mentioned as *Confluentes* by Ammianus Marcellinus, Lib. xvi, c. 3. (a somewhat obscure passage); it was visited by Childebert in 585, by Theodorick in 721, by Charlemagne and his son Lewis in 823 and 836, (the latter of whom held conferences here with his sons); and it was visited by his sons in the years 842, 848, and 860. In 882 the Normans came as far as the castle here, and not farther, and here did Charles the Stout discharge his army, after the peace had been agreed upon. In the year 842 it was allotted to Lothringen, whereupon it became the property of Germany and France alternately, until the former remained in possession of it, and the Emporer Henry II. by his royal prerogative presented it (1018) to Archbishop Poppo of Treves. In the year 1182 the citizens received out of the taxes sixty marks for the purpose of maintaining the town-buildings. In 1249 the town was still without walls: these were begun in 1252 by Archbishop Arnold, and in 1254 proceeded with by the citizens. In 1259 the power of levying taxes was granted. At last, under Archbishop Henry (reg. 1260—1286) the town is said to have been entirely walled in, the expences of which were met by a new tax (1276) confirmed by the cathedral authorities for six years, but continued to be levied for more than twelve years. Archbishop Henry commenced at the same time the erection of a fort (the present manufactory near the bridge of the Moselle). This led to a riot (1280); the citizens were indeed put down, but the case was taken before chosen judges, when it was decided that both the Archibishop and citizens might continue their fortifications. A similar

quarrel occurred in 1324 with the same results. Already in 1267 mention is made of a hospital outside the town. In the year 1301 the town formed a league with Bonn, Andernach, Boppard, and Oberwesel, for mutual help; and from 1304 to 1334 similar leagues were carried into effect, and again in 1358 with Cologne, Bonn, Andernach, and Overwesel, whereby it was agreed by Cologne to supply 3000 men and 100 sharpshooters, Coblentz 2000, Andernach 1000, Bonn 500, and the latter towns to contribute 100 sharpshooters between them. Nevertheless, strange to say, in 1366 Coblentz could boast of no more than 658 citizens, in addition to 63 in Weiss, 56 in Lützel Coblentz (*Little Coblentz*), a suburb formerly existing on the opposite side of the Moselle bridge, and 34 in Neuendorf. In 1459 a female establishment in the town was called *the house of the fair damsels*. For the support of this house the town paid an annual tax of three marks to the foundation of St Castor: it was sold by the town between 1570 and 1574, in consequence of a resolution of the Council of Trent. In the sixteenth century the town contained 674 houses (ecclesiastical buildings excepted), of which 22 were occupied by two families only, but 101 by widows, in Weiss 65, in Lützel Coblentz 70, in Neuendorf 29. In the year 1632 Coblentz was garrisoned by the Swedes, and surrendered to the French. In 1636 it was besieged by the Bavarian army of the Emperor, and more than half of the houses destroyed. (Already in the war between Philip and Otho (1199) the town had been burnt, and also in 1397, 200 houses were burnt by a knight of Ehrenburg). It afterwards surrendered, and in all respects was ill treated until 1666. After this

Archbishop Charles Caspar enlarged the Firmungstrasse, having already in 1663 constructed a bridge of boats over the Rhine. In the year 1666 the plague raged. In 1688, during a siege by the French, a third part of the town was burnt, together with the whole of Lützel Coblentz, and the towers of the church of our Lady (Liebfranenkirche). The town was gradually restored. In 1748 the parade was constructed. In 1765 the Duck-pond (Entenpfuhl) was built over. In 1778 a portion of the fortifications demolished, the castle in the new Town begun. In 1787 the residence of the Elector and all the *Dicasterien* were removed here from Thal-Ehrenbreitstein. In 1794 the French marched in, and in 1814 the Russians.

The history of the buildings in detail is as follows:—

The church of St Castor was built by Archbishop Hetti, consecrated in 836, visited eight days afterwards by the Emperor Lewis, endowed in 860, and in 922 frequently used as a place of assembly for the clergy, and already in the eleventh century injured by decay and fire. On this account the Provost Bruno, between 1157 and 1201, built a new choir; (to judge by the simplicity of the interior and the uncommon thickness of the walls, he built only the outside, like a cloak about an older apsis), as also both the side towers. Archbishop John built the nave and transept, and consecrated the church again in 1208. In later times (1498) the wooden ceiling of the middle nave was superseded by a richly decorated arch. The whole church was also on two occasions restored, once in 1785 after the great flood, and again in 1830 under the direction of the Author. The oldest parts of this church, which in its principal features

is so extremely beautiful, are the inner portion of the choir and the lower of the front towers; the inner part of the choir being easily recognized at the point where the first pillars of the nave are attached. Even these older parts may perhaps not belong to the erection of 836, but to a later unknown period (according to a comparison of some peculiarities here with some similar features in the towers of St Florin, it is likely to be contemporary with this), but it is evident that the single pilaster capitals at the front side of the towers belong to the structure of 836, inasmuch as they do not fit the pilasters, and are evidently taken from an older building.

The ground-plan is of the best kind: the width of the nave, and the well-assigned proportions of the arcades, render the interior really fine. It would be still more beautiful if the choir-seats were removed from the transept, and this made lower and combined with the nave; indeed, this may almost be considered as necessary in order to gain the space required for the worthy celebration of the fete of the millenary jubilee, appointed for the next year (1836). In the outer walls of the sides, as at St Cunibert's in Cologne, are built flat niches, evidently on purpose to strengthen them by means of stronger pillars between the niches. The same object was attained by the method adopted at a later period, although perhaps for a different purpose, as will be shown hereafter, by attaching buttresses either to the outside or the inside. The walls have nevertheless fallen greatly out of the perpendicular, and the side arches attached to them are rent asunder in such a way that the original *semicircular* binding arches have become

changed into *flat* arches, in consequence of the cracks being repeatedly filled up with mortar. This giving way of the side walls, which may be frequently seen in old buildings, is ascribed most erroneously to the thrust of the arches. This is clearly wrong, because small slender arches have no thrust whatever, as is already proved in those cases where one half of the arch remains hanging to the wall; whereas if they exerted any thrust they must needs have fallen down as soon as the head-line had separated. Now as this has not happened, we may consider the segment of the arch to form an integral portion of the wall, and its weight bearing inwards would rather tend to bend the wall inwards than push it outwards. But as the latter has occurred here as in many other places, the cause must be sought for without reference to the arches; and it may generally be ascribed to the circumstance, that means are seldom or never provided for allowing the water which falls from the roof to flow away. It is pretty well known that in a dry season every soil becomes more or less cracked, and consequently a crack is opened between the ground and the walls near the ground; when wet comes the water flows into this crack and soaks into the foundation of the walls; the wall of course sinks by its own pressure, and the sinking of an inch in this place causes the top of a wall twelve feet high to fall a full foot out of the perpendicular. This circumstance, so far as the Author knows, has never been taken into consideration, or at least never mentioned; and he has only met with one example in an important church in which provision was made in olden time for carrying off

the water. This example occurs at Altenburg near Cologne.

The following objects in the church are worthy of notice:—1. The tomb (modernised, alas!) of St Ritza, according to common report daughter of Louis the Pious. In a memorial of the citizens of Coblentz, dated 1265, to the Pope, requesting that she might be canonized, it is stated, that on account of the great length of time which had elapsed since her death, it could only be ascertained that she belonged to a royal or ducal family; whereupon Pope Gregory X. granted permission to Archbishop Henry to canonize her relics, which in 1286 was done accordingly. 2. In addition to other funeral monuments, there is an old grave-stone in the northern transept, ornamented with sunken wax-like colours, and the simple inscription, "Scolasticus." It belongs apparently to the thirteenth century. 3. The monument of the Archbishop Cuno, of Falkenstein (d. 1388), is in the purest pointed-arch style. It has a picture on the wall, the only specimen known as belonging to this period. 4. Opposite this is the monument of his successor Werner (d. 1418), but, unlike it, of very inferior value. 5. The good old images in the hinder part of the choir-walls. 6. The bronze crucifix on the high altar. 7. The pulpit, a very good example of the style of 1625.

2. The Church of St Florinus, now a garrison-church, was built, together with a monastery, by one Mechtild, a relation of St Helena, and first dedicated to the Virgin Mary. Archbishop Henry (d. 965) mentions it: Archbishop Ludolph (d. 1008) named it Florin's church. It was endowed in 1012 by the Emperor Henry, and

again by others in 1070 and 1071; and by Archbishop Bruno in 1110, who, according to old custom, established a Hospital there, which in 1216 was given over to the German religious order by Archbishop Theoderic. The same Bruno (d. 1124) built the present church, as it is said, *meliori schemate*. The new choir was added later, and under Archbishop Jacob (d. 1511) the organ-loft was vaulted over; as was also the nave, apparently after the siege of 1636 or 1688; for originally, like St Castor's church, it had a ceiling of wood. At the time of this vaulting, and under the roofs of the aisles, near the walls of the nave, buttresses were constructed of ordinary quarried stone wall work, a construction as sensible as it is rare. In the year 1669 the roof of both towers was burnt by lightning; and in 1672 two elegant slender spires were erected instead, of which the southern one in 1791 was struck by lightning and burnt; whereupon the northern one was also taken down, and the present wretched affair substituted. In 1808 Napoleon presented this church to the town for the erection of a slaughter-house. In 1817 the Prussian government bought it of the town for 27,000 dollars, and commissioned the Author*, at the expense of

* The Author cannot conceal the very great pleasure which the following order of the supreme Cabinet has afforded him; he finds therein abundant recompense for the ingratitude of others:

"I have taken a view of the evangelical church in this place:—its interior meets with my especial approbation: for I find every thing which can elevate the mind to devotion and edification, combined without parade and superfluity. I therefore commission you to make known my approbation to those who were engaged on this building, and especially to the architect.

"Coblentz, 29*th June*, 1821.

(Signed,) Frederick William.

"*To the Minister of State von Ingersleben.*"

12,000 dollars, to convert it into a Protestant church for the garrison. The form of the new door-pediment, to which Professor Klein objects, is quite according to the rules of construction, and occurs in all churches of that period. In the arched tympanum above we miss especially the carvings, which, like those over the southern door of the church at Andernach, were intended to be executed, but not done, for want of means. The nave of the church has uncommonly beautiful proportions, evidently the result of numerical calculations. The interior width of the nave gives 30 feet Rhenish, the diameter of the columns 3 feet, or one-tenth of the width; the distance between the axes of the pillars 15 feet, or half the width; thus giving a clear intercolumniation of 12 feet, or four times the diameter of the columns: the height of the columns is 15 feet, and therefore equal to the distance between the axes. Highly interesting is a small detached building, apparently intended at its first construction to be what it now is, viz. the residence of the sexton. This building stands upon the arches of the cloister, on the north side of the church; it consists of two stories, each covered with a vaulted roof. Even the chimney of the little kitchen is ornamented in the very best taste, showing the transition from the round to the pointed arch, and therefore most precious as a specimen of the beginning of the thirteenth century; and it may be highly recommended to the notice of the travelling artist as a model for a closet for a noble lady.

3. The Church of Notre Dame is the oldest parish-church, since it lay in the territory of the old castle, and

first received its name in the eleventh century. The present nave and the towers were built under the administration of Archbishop Arnold (who d. 1259), the choir was begun in 1404*, and only finished in 1431, the vaulting about 1500, and the tower-spires after the siege of 1688. The pillars under the organ-choir have been taken out of the western choir of the church at Laach: they are of limestone, the same as was used in the great Roman aqueduct between Treves and Cologne, and of which the little pillars of almost all the Rhenish churches are.

4. The former DOMINICAN CHURCH is now converted into a warehouse. According to an inscription, evidently not contemporary, the choir was finished in 1235. Additions and alterations were made after the great fire of 1441.

5. Of the FRANCISCAN CHURCH, apparently built in 1450, where the Franciscans occupied the monastery, the choir alone remains. This was preserved as a chapel to the hospital erected here. The director of the School of Arts at Dusseldorf, M. Schadow, has presented a large altarpiece, representing the Holy Virgin as Queen of Heaven (perhaps his best picture). The artist has given the picture on condition that it remain the property of this hospital, so nobly conducted by the Sisters of Charity.

6. The former JESUIT'S CHURCH (the order was established here in 1580), merely a chapel of ease to St Castor, was built from 1609 to 1615. It is a most remarkable example of the construction of vaults, on a

* See the inscription on the last pillar on the right: *Anno* 1420 *obiit Joannes de Spry, lapicida, inceptor hujus chori.*

plan as scientific as it is bold; and in no other church known to the Author are the walls so thin, and, with the exception of the choir, buttresses entirely dispensed with. The whole style of the church displays a strange mixture of the *modern-antique* of the time with the *pointed arch*. So also the vaults, only 5 inches thick, are no longer formed of cross vaults, but of a cylindrical vault with intersecting lunettes, in the Italian manner; on the other hand, it contains a rich rib-net, upon the knots of which are uncommonly large shields and the armorial bearings of all the families that contributed to the building.

7. The little CHURCH OF ST GEORGE, built in 1618, and now converted into school-rooms, is altogether in the pointed style. Were it not that the date is well ascertained, one would be disposed to make it 100 years older.

8. The CHURCH OF THE CARMELITES, built about 1659, and therefore only a little later than the preceding example, is nevertheless quite in the Italian style, with a cupola, but, like the former adjacent cloister, skilfully constructed: the north wing of the latter, in all three stories, massively overarched. The one is now a granary, the other a police-station.

9. The CHURCH OF ST BARBARA, built in 1707, with elliptical cross arches, and pointed-arch windows.

10. The CASTLE CHURCH (also since 1831 converted into a granary) was built about 1787, in the best French-Italian style, with beautifully formed ornaments of white marble.

Among the secular buildings stands first the MOSELLE BRIDGE. Pope Clement VI. in 1343 granted an indulgence for supporting our great Elector Baldwin in building the

same. The Emperor Charles IV. in 1359 authorized the levying of a toll on the same, because "it was in a shattered condition, and not yet entirely finished." The archbishops Werner and Jakob (in 1409 and 1440) granted indulgences for its completion.

The numerous curvatures of this bridge cannot, as many suppose, proceed from a sinking of the caissons at the foundation of the pillars, because the method of building by caissons was discovered much later. It is far more likely to be due to the faulty method of placing these pillars, so that scarcely any one stands parallel with the others. In this respect the ancients especially were not only negligent, but their measuring instruments were most imperfect*. A tolerably close scrutiny of old buildings will detect the greatest unevennesses. The spaces between the columns and the

* The ingenious Speckle, for example, in his well-known work on the Art of Fortification, speaks quite mysteriously of a super-excellent instrument of his own invention for mapping the circuit of a town, the description of which he gives as an especial favour. And what is it after all? An ordinary box-compass with a circular card containing certain divisions! At that time architects were so little acquainted with the simplest geometrical constructions, that their plans are often altogether inaccurate; as for example, the art and method of determining the different curvatures of vaulting ribs; on which subject the Danish architect, Ranisch, has published a book, throughout the whole of which he proceeds on a false principle. It becomes therefore very amusing to read, as one often must read, that the construction of vaults in olden times depended upon profound mathematical secrets, which, alas for science! have been lost. The old builders possessed nothing but the sound intelligence of sensible men, and an aptness in practice exercised from earliest youth. They lived more at the building place than at home;—thought of little else, and did little else; and thus they evidently succeeded much better than our well-grounded sages, who often bring into the world their left-handed productions, or lamely written pamphlets, and would fain superintend the erection of buildings from their writing-desk.

sides differ nearly always by some inches, and sometimes more, as for example, in the church at Simmern as much as two feet. Very seldom do we find the angles square, and never do the shafts and capitals form a truly perpendicular line. Even in the best constructed buildings, as for example at Cologne Cathedral, these unevenesses not only exist, but they are considerable.

THE ARCHBISHOP'S FORT, now a manufactory of lackered tin goods. This fort begun, as mentioned before, by Archbishop Henry 1280, has, besides the modern projecting building, another and more ancient building immediately adjoining, and built by Archbishop John Von der Leyen, 1558: it had also another restoration, 1681: in the first projecting building is one of the finest spiral staircases known to the Author. The ditches, which still remain, show plainly the small circumference of this princely dwelling.

The building of the MERCHANTS' HOUSE near St Florian was finished in 1479. Its upper part is a restoration after the fire of 1688. The former Sheriff's Court of Justice adjacent to it, with its pleasant balcony looking out upon the Moselle, and the elegantly arched hall adjoining, was built in 1530 by Archbishop Richard. The wall opposite this, with a row of small arches, is the oldest and sole remnant of the contiguous buildings belonging to the foundation of St Florian. A house near the Corn-gate has still its pinnacle-tops, as also a vaulted hall. Obliquely opposite stand two citizens' houses with well preserved gable fronts, built about 1500. The fine large portico in the buildings of the Royal General Commanders, formerly the Leyenschen

Hof, may belong to the same period. Of the Gymnasium, formerly the Jesuits' College, the wing near the open square was built in 1695 by the Elector John Hugo; the older one adjoining by the Elector John von Schönenberg, 1592; the southern older one in 1588.

The old RESIDENCE CASTLE of the Electors, built according to the plan of the elder Peyre, with certain variations instituted by his successor Dixnart, from 1778 to 1788, at the cost of 1,200,000 dollars of Treves, equal to 1,000,000 dollars Prussian, is skilful in its principal features, and, as a dwelling for an unmarried gentleman with many domestics, it is laid out with judgment; but it especially recommends itself by the good and careful execution of all its single parts. The two chief stories were, in 1822 and 1824 restored, and converted into courts of justice. But the old concert-room, intended for the public business of the Jury Court, proved so unfavourable for public speaking, that the voice of the speaker could not be heard unless the hall were quite filled with people. (Its dimensions are 92 feet long, 40 feet broad, and 46 feet high.) Rooms constructed with wooden cylindrical and spherical vaults often present a similar inconvenience: it was found possible to remedy it only by the following method: the Author first, by way of experiment, caused a large sail-cloth to be fixed to the imposts, and thus extended over the whole hall: and as the annoying echo immediately ceased, a linen tent-like cover slightly painted was so adjusted as to separate the room entirely from the arched ceiling.— In addition to the principal staircase, 18 feet wide, of which each step consists of a single stone, there is another flight, also of stone, near the before-mentioned

chapel, especially interesting to architects, for the single arms 6 feet broad, with a clear opening of 6 feet by 8 feet, solely supported by the cut of the cheeks. The Author knows no other example comparable to it in boldness and lightness *.

The THEATRE here, as well as the adjoining buildings, numbered 1009 and 1011, the productions of the worthy director Krahe of Brunswick, deserve to be noticed, on account of the purity of style, suitableness of construction, and economy of space: on these accounts it is a real model for small play-houses. The construction of the proscenium the Author thinks to be the best of all he is acquainted with.

At page 134 the DEAD HOUSE is mentioned. The details of this building do not belong to the Author; but he has built it according to the plan of the fine Baptistery at Cobern †, so remarkable in the history of art. The Author took this as a model for the present building, because it afforded an excellent opportunity for copying it, as well in its interior as in its exterior details. The high middle hall lighted completely by a row of windows close under the roof, is admirably adapted to the purposes of dissection. Of the six low sides, one

* As an especial admirer of the art of constructing staircases, the Author has endeavoured to contribute several illustrations of the same, by constructing the suspended stone steps at the Rheinstein, and in the buildings of the Chief President in this place; also the iron steps at the Mentz gate; the double stairs in the public house of Vater Rhein; the external and internal steps at the new parish-church at St Castor; as also some others at the castle of Rheinech.

† Whoever has any taste for architecture, with time and means at command, should not quit Coblentz without making an excursion from thence to the splendid church at Münstermaifeld, and to the forts at Elz and Ehrenburg, which he can do by coach in one day.

serves as an entrance hall; another for disposing the bodies; another for the safety apparatus (which in truth is of no use here or anywhere else); the remaining three are the rooms of the attendant.

Among the town-dwellings may be mentioned those which after the great fire of 1688 were built about the year 1700: they are generally to be distinguished by projecting low windows built on light corbels. Some of them consist of several stories; for example, the four corner houses near the chief guard-house: others are remarkable on account of their great size; for example, those near the former Mercers' Hall (Krämerbau): those near the parsonage-house of Notre Dame, and the house *Zum Rosenstoch*, No. 43, the coupled windows of which have this peculiarity, that they are arranged first in the increasing progression 2, 3, 4, and then in the decreasing 3, 2.

It is well known how honourably the reputation of the master-builders has been increased by the plans, construction, and completion of the various fortified buildings on this as well as on the other side [of the Rhine], but there is another circumstance equally honourable, which ought not to be passed over in silence. We allude to the fact that among the numerous labourers, contractors for materials, and contractors for the building of these works, not one has become rich, although the cost of the whole has exceeded 5,000,000 Prussian dollars.

Thal Ehrenbreitstein.—*Page* 148. The church of the Capuchins, built 1658, has, like many older and later churches, a decorated false vault, and which may at least claim the merit of being of ingenious and simple con-

struction. The rafters of the roof are cut out semicircularly, and between them are placed light curves of oak-wood, the under sides of which are horizontal; these have common barrel-hoops nailed to them, the convex part being turned upwards. The dove-tailed intervening spaces produced by this arrangement are closed up with mortar mixed with straw, and the light thin vaulted cover thus formed is stained all over in the ordinary way.

The former *Dikasterial Building* and store-house was built about 1750, under the direction of the father of the present Colonel Seitz, the occupier of the villa so pleasantly situated in Pfaffendorf, and the proprietor of so many treasures of art. All the stories are massively vaulted and admirably executed; and we have here another example how a building belonging in itself to a tasteless style, is yet capable of producing a pleasing impression, inasmuch as the principal masses and the proportions are beautiful, the exterior good, and all that meets the eye contributing to the purpose of the plan.

The *Sauerbrunnen*, which here as well as in Koblentz, under the name of Born, is in high repute, was named in a document so early as 1326 Schwalburn, and in 1355 St George's Brunnen.

EMS.—*Page* 144. In the village of Ems there stands a fine little basilica, but, alas! somewhat modernised *.

VALLENDAR.—*Page* 154. A similar basilica is here, and indeed it has a crypt. The arches and other ad-

* All of this kind here rest upon simple quadrangular pillars, and only in Cologne upon pillars with cubical capitals. The only known exception is that at Höchst, which contains old Roman-Corinthian columns.

ditions, however, belong to the 15th century. Archbishop Hetti built on this site a church contemporary with St Castor in Coblentz, which in the devastating war between the rival emperors Otho and Philip, about the year 1200, may possibly have been destroyed; since the present one seems to belong to that time; but the tower belongs probably to the 15th century. This church possesses some works which are worthy of attention; such as the case in which the host is kept, some cups, and some reliquaries.

NIEDERWERTH.—*Page* 153. This church was probably built about 1500, since at the establishment of the choristers here in 1437, by Archbishop Raban, a consecrated chapel was already (1337) referred to.

BENDORF.—*Page* 156. The Lutheran church here is also a basilica well worthy of notice, its decorations and forms are peculiar. The middle nave originally possessed no wooden ceiling, like the church of St John at Niederlahnstein, the churches at Ems and Vallendar, but a stone vaulting. Over the windows we see the round arch already merging into the pointed arch.

SAYN.—*Page* 157. The old and very remarkable cloister church consists of three different parts: the transept, built in 1202, does not afford the slightest trace of the pointed arch, but, on the contrary, a spherical roof over the intersection of the nave and tran-

columns. Their age is, we are sorry to say, unknown: in 1090, Archbishop Ruthard of Mentz presented them to the foundation of St Alban's in that place; in 1440 they were given up to the order of St Anthony, to which order we are indebted for the choir as well as the beautiful northern portal.

sept. In the subsequent addition of a simple nave (that is, without aisles) the round arch indeed predominates, but yet we find the pointed arch over the portal and over the northern windows. The pilasters with small projecting side pillars, united with sunk arches, prove that at the erection of this building round-arched vaulting was contemplated; and the present wooden cover only provisional, although the walls possessed no buttresses. The choir may have been built about 1400; its ground-plan, comprising six sides of an octagon, is quite peculiar. At the entrance the effect is most picturesque by reason of its strong illumination from side windows, which are not seen, the view of them being prevented by the outward bending of both choir sides and the uncommon length of the nave; moreover, there is little light in the transept. The metal gilt and richly decorated case containing the arm of St Simon is worth inspection. Provost Bruno of Bonn, afterwards archbishop of Cologne, presented it to this church in 1204.

At the neighbouring iron-foundry persons fond of the mechanical arts will be pleased with the following objects:—1. The foundry, with wide iron scaffolds, bearing a large inclined plane resting upon pillars 22 feet high. 2. The crane which turns upon these. 3. The cannon-boring machinery. 4. An English turning lathe of very large size. At the store-room, among other cast-iron works of various sizes, are sold bas-reliefs representing the external appearance of old buildings, such as the baptistery at Cobern, the churches of Bonn, Andernach, Sinzig, Münstermaifeld, the Council-

house at Münster, the tomb of Archbishop Cuno, and many others.

Romersdorf.—*Page* 159. An older church, consecrated in 1210, was burnt about 1347, in the cruel war between Archbishop Baldwin and the Count of Isenburg. The latter was compelled to repair the damage; a new church was therefore built, the choir of which, in 1351, was consecrated. The still existing chapter-house* and one portion of the cloister belong to our most beautiful monuments. Two of the six pillars in the chapter-house are of granite†; the deco-

* Boisserée, in his Monuments of the Lower Rhine, Plate 58, gives representations, accompanied by explanations, of the peculiar uses of these buildings: "The chapter-house, or the chapter-hall, was that portion of the cloister or collegiate buildings which, next to the church, was held in most esteem. Here the monks after the morning service assembled daily under the presidency of the Abbot or Prior. The history of the saint for the day, and a *chapter* from the rules of the order were propounded (hence the name of *chapter*-house): also on the anniversaries of the death of a brother of the order, of a benefactor, and of a patron, those portions of the annual registers were read which recorded the event, and during the whole of this suitable prayers were uttered. Hereupon followed the reproof and punishment of offences which had been openly committed, or of which the brethren had accused themselves; and finally distribution was made of labour and occupation, the affairs of the cloister considered, or the cases of candidates for noviciates, and the election of an Abbot or Prior." Considering therefore all these important uses of the chapter-house, we see why it was built with especial care and without regard to expense: it was commonly erected in the vicinity of the church at the east side of the cloister. Projecting seats were provided round its interior, and in the midst a distinguished seat for the Abbot or Prior, near which were the members of the foundation, the Provost or Dean. The hall was also decorated with pictures, and it contained also a cross and a reading desk.

† Schreiber, in his before-mentioned Rhine Journey, page 331, takes them to be Roman, and strongly urges that they should be pulled down and placed near the Roman monuments, some old foundation walls, at Bieber or Engers; that is, to pull down the chapter-house and bury the columns!

rated vaulting-ribs, as also its buttresses, prove that it belongs to the buildings which the Abbot Bruno Von Braunsberg erected here about the year 1216. At the sale of the cloister-buildings the purchaser was obliged to agree to keep it in repair.

ENGERS.—*Page* 160. The roof-painting in the castle-hall, belonging to the older and better period of the court-painter Zick, is worth inspection; as also the beautiful prospect afforded from the balcony. The green-house and hot-house here have cast-iron windows; the latter has iron roof supports, built by the Author in 1821. The cost was about 8300 dollars.

The before-mentioned masonry being the foundation of a building 50 feet long by 30 feet wide, seems, on account of its inferior workmanship and the absence of tiles, to have belonged rather to a fort, which formerly stood here, than to a Roman building. John Philip Von Reifenburg in the *Antiq. Saynens.* and others after him, Schreiber for example, would have it to be the spur of a Roman Rhine bridge.

NEUWIED.—*Page* 162. The collection of Roman antiquities here is particularly rich in small utensils, tools, and such like objects. Among them are also found grains of roasted corn, still perfectly edible.

ANDERNACH.—*Page* 167. In the church represented by Boisserée, Plates 44 to 48*, the northern tower of the choir is evidently very much older than the rest of the church. It may have belonged to the former

* Since the plates of this work are sold separately, we have thought it right to give the numbers attached to those which contain Rhenish buildings, in order that the reader may know at once where to find representations of them.

structure, said to have been built under Lewis the Child in 908, and apparently destroyed, together with the town, in the war we have so often mentioned, between Otho and Philip (1199). The present church may have been erected at the beginning of the 13th century, perhaps by John of Treves, who, in 1212, purchased the patronage of it; as also in later times, the Emperor Frederick III. (d. 1475) erected an altar and established a mass therein. The vaulting over the nave bears three escutcheons: one contains the arms of the town, another those of the Emperor, and the third those of the Archbishop Herman IV. of Cologne (d. 1508); without doubt therefore it belongs to this period, although it is reckoned to be older. The bas-relief over the southern entrance-door is remarkably fine, as also the impost decorations on this and the other doors; the predominance of horizontal lines and the richly-decorated west front is peculiar. Of rare beauty, also, are the profiles of the Coblentz gate: its various injuries arise apparently from one of the many wars, in which it was customary to have fires at the gate; a practice very injurious to this basalt lava, which splits on the application of a very moderate heat. Contiguous to the gate are the highly picturesque remains of the archiepiscopal palace, with its strong towers, which, judging by their decorations, belong doubtless to the end of the 15th century*. Here also are still visible the remains of the bridge which the citizens there broke up in a skirmish

* Few cities can boast of so picturesque an entrance as is presented by Andernach on this side: the town is solely indebted for the preservation of this entrance to the liberal hand of his Royal Highness the Prince Royal.

with its proprietor; but being compelled in 1355 to rebuild it, by the judgment of the towns of Cologne, Bonn, Coblentz and Wesel, chosen as umpires, they must have destroyed it a second time, because by an agreement in the year 1467 they undertook to build it again, to which, however, the Comptroller of the Episcopal Foundation (1473) refused his assent. The palace of the Austrasian kings did not stand in this place as generally supposed, but according to the poem in which Venantius Fortunatus about 562 sings his Rhine journey*, it stood close upon the Rhine. There also exists still a town-gate, the

Antonnacensis Castelli promptus ad arces,
Inde prope accedens, sarcina pergo ratis.
Sint licet hic spatiis vineta in collibus amplis,
Altera pars plani fertilis extat agri.
Plus tamen illa loci speciosi copia pollet,
Alter quod populis fructus habetur aquis.
Denique dum præsunt Reges in sedibus aulæ;
Ac mensæ officio prandia festa colunt,
Retibus inspicitur, quo salmo fasce levatur,
Et numerat pisces, cum sit in arce sedens.
Rex favet, immensa resilit dum piscis ab unda,
Atque animos reficit, quòd sua præda venit.
Illuc fausta videns, huc læta palatia reddens,
Pascens ante oculos, post fovet ipse cibis.
Præsentatur item mensæ Rheni advena civis,
Turbaque quo residens, gratificatur edens,
Ista diu Dominus dominis spectacula præstet,
Et populis dulces detis habere dies.
Vultibus ex placidis tribuatis gaudia cunctis,
Vester et ex vestris lætificetur apex.

HONTHEIM, *Hist. Trev.* I. 44.

It appears hereby that the old castle was situated close on the Rhine: the ruins of the former archiepiscopal castle stood, therefore, at a tolerably long distance from hence: but Schreiber, page 336, with much simplicity, concludes that the Rhine has since altered its course. He also naturally concludes that the great round tower with the Gothic arch cornice and shell-roof is a Roman work.

inner part of which, looking towards the town, may be Roman, judging at least by the rough statues, with short close-girt attire, placed thereon. The Franciscan church, occupied since 1818 as a stable, belongs, as already mentioned, to those rare structures which at their origin consisted of two naves. As early as 1246 a church existed here. The present structure was erected between 1414 and 1463, and in 1489 a statue of the Holy Virgin was consecrated in it.

The highly picturesque tower at the lower extremity of the town, was erected about the year 1520, in which year the town was in treaty with Archbishop Hermann of Cologne, respecting its erection. The Crane on the Rhine was erected in 1554, with the permission of the archbishop, at that time obtained. Its arched corbel table with the attics over it, affords an elegant specimen of the transition from the pointed style, to that of the modern antique; as also the house formerly belonging to the Counts of Leyen, situated at no great distance from the Coblentz gate, which shews the transition in the height of its beauty. Lastly, the Jew's bath, so often shewn to travellers as a Roman bath, is indeed no other than a common Jew's bath, similar to those found in all cities* where Jews reside; because the Jewish women are sometimes obliged to bathe in water which has *flowed*, and not been *poured* or *pumped* into the ewer. Towards the end of the 13th century, the citizens of this place expelled the Jews and destroyed their houses and syna-

* A similar one in Coblentz is quite rough: another at Friedberg in the Wetterau is, on the contrary, elegantly adorned in the pointed style. They all consist of a well or spring about which a flight of steps leads down to the water.

gogue, but according to a judgment of arbitration of the year 1287, they were obliged to repair all the damage they had committed, to receive the Jews again into their town; until at length, in 1596, the citizens obtained permission from Archbishop Ernest of Cologne to expel all Jews.

St Thomas.—*Page* 169. A pious monk, Isenbertus, sent hither in 1129, as prior, to establish discipline in the cloister, died in the odour of sanctity, and was buried in the chapel of St Michael, and there performed miracles, especially in curing the diseases of children. The exterior of this chapel is remarkable on account of its beautiful arcade; and the interior for its pure Roman cross arches; such a structure with straight horizontal crown-lines is on that account, as also on account of its ascertained date, of especial value as a work of art, and therefore it is so much the more to be lamented that some years ago it was divided into cells for insane persons. Fortunately the arches remain unchanged: it is therefore possible, and even probable, that we may yet see it restored back to its original condition, especially as every lunatic asylum should have a chapel, and according to the most recent opinions on the subject, such cells are not only unnecessary, but they are even found to be prejudicial to their inmates.

Leudesdorf.—*Page* 171. The parish church possesses a good old baptismal font, and the partly underground burial chapel has ornamented pointed windows, although it was built in the middle of the 17th century.

Namedy.—*Page* 171. The small old conventual church belonging to the end of the fifteenth century,

is divided into two naves, by means of a row of slender columns. The choir also has much that is peculiar.

FORNICH.—*Page* 172. The chapel in the street, was built in 1369, by John Von Irslich, an incumbent of Andernach.

HAMMERSTEIN.—*Page* 173. The fort ruin, considered as such, is unimportant; but the little church in Oberhammerstein is worthy of attention. Not only has the choir a building over it, which almost leads us to infer a former baptistery, but the church also possesses a vaulted roof built upon wooden ribs, the key-stones of this vaulting consisting of posts hanging from the roof, into which posts the ribs are fastened.

LAACH.—*Page* 176. The church here, (see Boisserée, Plates 25, 26) built from 1093 to 1156, in the purest round-arch style, without buttresses, and without the slightest trace of a pointed arch, possesses, like the great cathedrals at Mentz, Worms, and Speier, two choirs and two transepts, the latter bearing each a large tower, and two others, one on each side. Every thing is most richly adorned with the best ornaments, and every part of the work is executed in the best and most beautiful manner. It deserves to take the lead of all the treasures of our land of Treves; and is of the highest value to connoisseurs and amateurs of art. Like St Clement's at Rome, it possesses a wonderfully beautiful cloister-walk in front of the west end. The monument of the founder, erected by Abbot Theoderich (about 1295), has by no means "lost two columns;" its wonderful canopy, with old

Greek profiles, could scarcely spare a half column. Its wooden image, not the "copy," but the model, of the stone one, has been, we are sorry to say, removed to Bürresheim. The model of the church, which this figure formerly held in its hand, was missing for 30 years, when, by a most singular coincidence, it came into the possession of the author; but alas! it is only a rough, incorrect representation of the building. The grave-stone of the first Abbot Giselbert (who d. 1152), together with his bust and an inscription in Mosaic, half destroyed by violence and mischief, is worth a visit to the Museum at Bonn*. The subterranean drain of the lake was constructed by the second Abbot Fulbertus (who d. 1177). At the sale of the Abbey, the possession of the church was reserved; and, so far as means permitted its preservation, was cared for. It were much to be desired, that a proper system of draining were first attended to. For want of it, much injury has already been done; the side walls are somewhat pushed out, and the arches display wide cracks, which, although of old origin, yet have widened in later times. In the meanwhile, this damage may cause the whole to come down with a crash; and therefore the church deserves the most careful attention.

RHEINECK.—*Page* 178. The watch-tower is not "Roman, founded upon a rock, and with walls seven feet thick:" it is not particularly "bold:" it is not

* Far more remarkable, in many respects, is another preserved in the Museum at Bonn; relics bought at a very high price; namely, the shield which the pretended Hermann is said to have worn in the fight with Varus.

150, but alas! only 65 feet high. The old masonry, built partly before, and partly after the destruction of the fort, on its conquest by the emperor Conrad in 1150, was in so miserable a condition, and the chapel built upon it so much out of repair, that it was found necessary to pull every thing down, even to the last stone of the foundation. This is much to be lamented on account of the chapel, although, after the fire of 1784, its interior was horribly modernized. The newer one was, however, as regards its exterior, a faithful copy of the older one, as far as the battlements of the underbuilding, that of the choir niches, the arch work, and all that is put thereon. Should the round gable in the Rhine front of the new building excite a scruple in any one's mind, it must be considered that a round gable is quite consistent with round arches. Moreover, this gable form is to be seen in the Chapel of the Cathedral at Goslar.

RHEINBROHL.—*Page* 179. The cloven steeple of the tower of the parish Church resembles those at St Gereon, at Cologne: the whole west side of this tower rests upon a huge oak beam over the arches of the choir. The Chapel close upon the Rhine, displays in its elegant interior, a very neat wooden vaulted ceiling: no attempt has been made to conceal the material of which it is composed, but it appears to be what it really is.

NIEDERBREISIG.—*Page* 179. At the lower end stands a small, but genuine piece of Roman wall. The Church, erected in 1718, has still pointed arches with ribs, the latter, however, resting upon Roman pilasters.

Oberbreisig.—*Page* 179. The "inscription," consisting only of a religious saying, is to be found on the socle-covering of the church, which is worth notice, and possesses a side porch, closed with an Arabic arch, i. e. a circular arch continued beyond the half circle; an aisle with niche formed arcades; a *männerchor* over the northern one; and pillars, the imposts of which are profiled according to the Lesbian form; which indeed, in the members of our buildings in this region, is not of rare occurrence.

Leubsdorf.—*Page* 179. The small Church is not entirely destitute of importance; more remarkable, however, is the small old Fort-house with its little corner tower, the interior of which is in good preservation, and gives a clear idea of the excessive modesty of the knightly dwellings of that time.

Dattenberg.—*Page* 180. On the romantic road, leading from the Rhine over Dattenberg to Leubsdorf, is situated between the latter, a small plateau, which may be recommended as an excellent site for the erection of an antique villa, commanding an extensive and splendid prospect.

Sinzig.—*Page* 181. The Church, (see Boisserée, Plates 53 to 55), not built in the "German" but in the transition style, may boast of a particularly fine situation. Like so many others, it was apparently built after the before-mentioned war between Otho and Philip, when the town was burnt. In its principal features, as also in its details, this church contains much that is truly beautiful. A smaller and simpler one, in the neighbouring Heimersheim on the Aar,

displays a remarkable resemblance to this. A two-hours walk further on brings us to Ahrweiler, where stands a splendid church with triple choir, erected between 1245 and 1274 by Gottfried von Blankenheim, the thirty-fifth Abbot of Prüm. The town of Sinzig was once important. The Frankish kings had a Palatium there, which, up to 1110, was sometimes inhabited. The emperor Adolph, in 1297, authorized the levying of a tax for completing its fortifications.

Linz.—*Page* 182. The beautiful picture, already much injured by the well-known picture-murderer Pereira, was last year almost utterly destroyed by an unlucky fall upon the ground. The beautiful slender *Helm* on the tower, contains the highest roof structure which the author has ever seen: it owes its existence evidently to the great fire of 1391.

Remagen.—*Page* 184. The door-way of the Catholic parsonage house consists of the remnants of an older one, and has a small side door. The remarkably grotesque sculptures upon it might seem to belong to a remote age, were it not that some of its architectural details prove it to belong to the end of the eleventh century. Similar sculptures also occur at the southern side entrance of the Cathedral at Münster in Westphalia.

Apollinarisberg.—*Page* 185. Archbishop Frederick of Cologne (who d. 1131) built here a cell for some monks. In 1164 the bones of St Apollinaris were placed there; the existing crypt belongs therefore, most likely, to the first building. The newer church, apparently erected after the oft-mentioned war

between Otho and Philip, is similar to that in Oberbreisig, and contains many peculiarities, especially in its vaulting. The Church and the buildings, together with considerable estates, are for sale. May they be so fortunate as to find a purchaser like him of Rheineck! A more beautiful place for a country seat could not easily be found: the prospect is charming, and the view of the Siebengebirg admirable.

UNKEL.—*Page* 187. In the Church here, the middle pillars are thicker at the upper than at the lower part. It possesses a good baptismal font, copied by Boisserée, Plate 24.

HEISTERBACH.—*Page* 196. The choir of this Church, begun in 1210, consecrated 1233, is particularly valuable, inasmuch as it proves what large masses can be placed upon long taper tobacco pipes of columns. This Church is represented in a very complete manner by Boisserée, Plates 39 to 44. Would that it were possible, that at least this single remnant of a splendid Church, perhaps the most picturesque of all ruins, might be preserved for posterity, which might be done at small expence. A Monk there, one Cesarius, wrote, in 1222, the *Dialogi mortuorum*, a very remarkable book.

GODESBURG.—*Page* 198. The "proud tower" is again nothing less than "Roman," but belongs, no doubt, to the first fort, begun in the year 1212 by Archbishop Theoderich of Cologne. At the end of the village stands a small chapel with an adjoining building, both of noticeable character.

BONN.—*Page* 205. The importance of the Church of the Münster foundation, so early as the year 1131,

is proved by the bull of pope Innocent II. confirming to it its possessions, by which document they appear to have included, in addition to a great many other estates, not less than 35 parish churches with their tithes. In 1139, the pope grants to this foundation the overseership of 4 country deaconships, with 388 parish and feudal Churches. The choir (see Boisserée, Plate 56) with its towers and the crypt, as also the cloister, were built by the Provost Gerhard, a Count of Sayn, about 1157. The Church was built later, apparently by Provost John about 1270. It suffered very much by fire in 1590 and 1639, but it belongs to the finest of our monuments, especially as an example of the transition style. Its interior is noble, its details fine, and, like the hitherto too much neglected cloister, contains many peculiarities; and, certainly, as the principal church in such a town as Bonn, and as belonging to the privileged seat of the muses in the province, it does not deserve to be used as a lumber room for empty barrels and champagne baskets. Of the Church of St Martin, pulled down in 1810, there is no trace, except the view given by Boisserée, Plate 1, and a section by Meyer, by which it appears to have belonged to the beginning of the eleventh century. The interior of the former Minorite, now the parish-Church, has been, within the last few years, extremely well restored, and affords a remarkably pleasing and elevating impression. Its age is not known; but it belongs, apparently, to the later pointed style. The Jesuit's Church, consecrated in 1617, has, like all those belonging to that order, good

proportions, which, however, are somewhat destroyed by the bad style of the period. Admirers of Roman inscriptions will find much that is worthy of their attention in the collection belonging to the University.

SCHWARTZ-RHEINDORF.—*Page* 220. One of the most rare double churches, i. e. one standing upon another; which has the singular good fortune to be able to display its history to every reader in an old inscription in stone. It was begun in 1148 by Arnold, a Count of Wied, then Archbishop of Cologne, and intended for his place of burial. In 1156 he died, as Archbishop of Mayence, and was buried here. This church was consecrated in 1151, and does not shew the slightest trace of the pointed arch. It is, therefore, of especial interest in the history of architecture. It has an arcade going almost round the whole church, resting on more than one hundred little pillars, which, at their bases, as well as at their capitals, display a whole assemblage of various adornments and profiles.

COLOGNE.—*Page* 224. St Maternus, as the first bishop and the disciple of the apostle Peter, so early as the year 94, is said to have built a cathedral church and to have dedicated it to St Cecilia. A later one was founded by Archbishop Hildebold, who being present with Charlemagne at his death in 814, inherited certain treasures by the will of the latter, for the purposes of this building. In 819 the said Hildebold bequeathed to this cathedral his books. In 873 it was consecrated in the presence of many foreign bishops. It stood near the present fort wall, but was much injured by the incursion of the Romans, about 882. It

was also extensively injured in 1080 by fire, and finally in 1248 it was entirely destroyed by fire. In this same year Archbishop Conrad, of Hochstetten, laid the foundation stone of the present one*, of which the choir was completed under his fourth successor in 1320, and solemnly consecrated; but the frequent disturbances of that stormy period seem to have occasioned many hindrances to the building. Archbishop Wilhelmus (who died 1362) erected a high altar together with his own tomb. Of the older church there is no design in existence: all that is known of it is, that it had two choirs over crypts, two wooden towers, and the nave ten windows on each side.

With regard to the so often mooted question, as to whether this super-excellent building, this unrivalled giant work† ought not to be completed, the author may here in few words offer his opinion.

That this completion is not impossible as far as

* The magnificent work on the cathedral which we owe to the magnanimous sacrifice of large sums of money by Sulpiz Boisserée, is known to the world. To render it more generally useful, a smaller edition is a desideratum. The little book on the cathedral by De Noel, the keeper of the Wallraf collection, a man of rare taste for the fine arts, and of extended information in history, deserves to be recommended to every one.

† Mr Whewell in his excellent, but not sufficiently known little book, entitled: *Architectural Notes on German Churches, Cambridge*, 1830, applies to the cathedral the following expression (page 67) which is as beautiful as it is true: "Cologne's cathedral is the unrivalled glory of buildings of this class; the most splendid, and perhaps the earliest exhibition of the beauties of this style." Boisserée, in yet stronger terms, and with equal truth, names it a "memorial both of the sublimest genius, and the utmost steadiness of purpose and artistical power, and in spite of all our schismatic divisions, an emblem of the united histories of the German Father-land."

regards mechanical difficulties, that the completion would not even be difficult, the practical architect requires no proof. He is satisfied with the resources afforded, by the rapid advance, in modern times, of our knowledge in mechanics, in the arts, and in the sciences. The non-practical man, on the other hand, may be easily convinced of this, by reviewing our most recent restorations, which we and the world owe to our pious king, and for which we cannot be sufficiently thankful. The only thing to be considered is the cost, which, according to credible estimates, would probably amount to perhaps five millions of dollars, for the completion of the whole, the two towers included. To collect this sum in the course of a few years, or during the life of one sovereign, the unfavourable circumstances of our times certainly do not permit. Nay, among so many other and more urgent claims, such an undertaking might be called a culpable expenditure of money. But what hinders us from proceeding in the path which our forefathers trod? Even they, when they began this building,—the plan of which, like another Minerva, sprang out of the head of an older Schinkel, in the noblest attire,—even they were not so ignorant or so imprudent, as to entertain the hope of living to rejoice in its completion. The piety of the founders, and the giant-like conception of the building, are perhaps equally deserving of our admiration: if their successors,—during a wild and disturbed period, which, if powerful, was also rude, including as it does well nigh 400 years;—if they sedulously exerted themselves, according to their means, in the commencement of works

intended for all times and for all generations, it certainly behoves us in our time to imitate their example. Whether the object is accomplished sooner or later, whether that which was commenced more than 500 years ago, be finished within 50 or 100 years from hence, is of little importance*. If we suppose 100 years, an annual outlay will be required of 50000 dollars, the collection of which sum, for the honour and glory of God, would not fall heavy on a province which has enjoyed so many blessings over others; and we may surely reckon upon the support of a government, whose good wishes and great zeal for the promotion of good are known to every one, and whose Chief has distinguished himself, above all his contemporaries, by the display of a truly pious feeling. Moreover, private contributions would certainly not be wanting, as soon as the determination to continue the building were once made known. And it is one of the pleasing features of the age we live in, that amidst all the contentions of party, a pure religious feeling, more or less powerful, is being everywhere more and more strongly developed, among the better class of persons. Do we not read almost every day of benevolent foundations of greater or less extent? Have we not recently seen

* "Great buildings," says Moller, "naturally require a great length of time for their completion. Those who first undertake them, must therefore always reckon upon the perseverance and steadiness of their successors. If the work still serves the purpose for which it was originally intended, and therefore still exists among living beings, so does even the silent unanimity of all generations demand, that that which was began should be continued, that that which was left unfinished should be completed, so that the great and the splendid stand not as mere fragments."

an instance in our own neighbourhood, how a private individual, formerly a brother of a monastic family, expended almost the whole of his possessions, amounting to 33000 guilden, which during a life of 80 years he had carefully scraped together, for the purpose of founding a church in his native village, for endowing a vicarage in another village, and for the support of the poor? All this money he resigned with joyful heart, and still continues to perform the duties of his little school, with the same zeal with which he undertook them four and thirty years ago.

Page 234. The cathedral picture, which is generally known to have been the altar-piece, formerly belonging to the chapel of the council-house, is spoken of in the little known "Town book" of Simon Novellanus, as follows: "This year (1574) the town house has been adorned most splendidly with a gallery or *Moenian*, built by skilful masters, with much diligence and excellent workmanship, resting upon 16 pillars (hewn out of hard black marble and in one piece). It has beautiful arches under and above, and in the middle height, a convenient promenade: it was not finished without considerable expense. Directly opposite this is a chapel, which in former times was a Jews' synagogue or school, but in the year of Christ 1426, it was consecrated to the honour of the most holy Virgin Mary, and named Jerusalem. In this chapel there is an altar-piece, so skilfully painted, that even the most experienced painters cannot sufficiently praise it, and are quite taken by surprise on seeing it." It follows from this, that the picture was most probably designed for the chapel, and

consequently executed about 1426; which becomes still more probable, by comparing it with the before-mentioned wall picture, at the tomb of Archbishop Cuno, at St Castor's, in Coblentz, built probably after 1388. No date is to be found upon it, but on one of its wings a very plain M is to be seen, and on another wing, just as distinct, an N, an O, and an X; only that in the former, the hyphen, or uniting stroke, is drawn from below upwards, and not as is usual, from above downwards. There seems no good reason why the painter should not be as well named M. NOX, as William or Stephen, since the records of Cologne do not mention any one of them; but the Limburg Chronicle makes mention of master William so early as 1380*, and as in Albert Durer's account of his journey, the place where he saw the picture is not distinctly stated, it may therefore have been at any other place, as well as here. If the painter of this splended picture were indeed named M. NOX, which no one will hold for impossible, on account of its being an uncommon name, it must appear as a peculiar trick of fate, that people will dispute about the artist's name, when he has so plainly set it before their eyes, in the foreground of his picture, a thing which scarcely any other artist has done.

Page 235. St Mary's church, in the Capitol, is worthy of especial attention. Its plan† is doubtless the finest of all; and we know of only one that can attempt to rival it, and that is its namesake, standing

* "Item, two silver pennies have been given to enlarge the table, which Master Stephen of Cologne has made."

† See Boisserée Plate 2, as also from Plate 3 to 9, for complete plans and drawings of the beautiful tower at the northern entrance.

near the cathedral at Treves, and built from 1222 to 1243. That St Plectrudis about the year 700 built a church on this site, is certainly true; but if there is any such thing as architectural history, it has nothing to do with the present church; which, according to its whole style, more especially on account of the remarkable pillars behind the organ, may be referred, at the earliest, to the year 1000; as also the tomb of the foundress, built in the wall at the outside of the choir, evidently belongs to a still later period. Historical data certainly are wanting here, as also with so many other Cologne monuments; at least up to the present time nothing has been discovered respecting it, only that Archbishop Bruno (who died 965) left by will 100 guldens for the completion of the cloister, of which however only a few pillars now stand, and that after 1637 the iron ring was put about the choir. According to all accounts, the nave had originally a wooden ceiling; the arch-work may belong to the fourteenth century: many infallible signs prove that the triple choir and the nave are not contemporary. The report that Archbishop Anno transplanted hither (1057) the collegiate foundation of Dortmund, is founded on a mistake; for this event relates to the church of *Maria ad Gradus*, built by him, but, alas! pulled down. The beautiful crypt contains some remarkable fresco paintings, and is in a most unbecoming manner let as a warehouse. We may mention, as being worthy of attention, the southern choir chapel, endowed 1460 by the Hardenrath family, (which also caused to be made the perforated choir-walls,) the northern chapel with its

hanging network of ribs (St Leonhard, at Frankfort has a similar one), an elegant oratory, bronze baptismal ewers or beakers, and a picture bearing the mark of Durer; the organ-loft, composed in 1625 out of the remains of a chapel, or rather of a rood-loft (lettner); and lastly, the fine old paintings on glass, and the various tombstones placed at the west end, extending back to the earliest times of Christianity.

Page 237. St Gereon (see Boisserée, Plates 61 to 63), the date of whose erection is various for the various parts, is also a pearl of church architecture. Its date may be discovered with tolerable accuracy, and thus becomes of much importance as regards the history of the art. St Helena, about the year 320, built a church here, which in 595 was named after the *Golden* Martyrs, probably because this church, like many others of that period, contained mosaic pictures on gold ground. In a poem of one Venantius Fortunatus, dedicated (about 570) to the Bishop Carentius, he is celebrated as the restorer of golden temples. It appears, therefore, that changes had already taken place about that time, or at all events after the destructive incursion of the Normans about 882. The older part of the crypt, between the decagon and the towers, with the superimposed middle choir, may belong to the restorations, which, in the tenth century, followed the incursion of the Normans. Its vaulted roof must be excepted; for this was renewed after a falling in, which took place in the year 1434. These towers, together with the choir niches, and the crypt under it, were built by Archbishop Anno, who in 1067 consecrated the chapels near the crypt, in 1068

the crypt itself, and in 1069 the restored church. The towers, the choir, and the newer crypt, belong therefore undoubtedly to this time; and the roof only of the latter was renewed, as already stated, in 1434; and this is moreover plainly proved by comparing the pillars of the crypt with the older pilasters. In this building by Anno, we may remark that the corner leaves (Eckblätter) of the pedestals consist of mere rough lumps, and are sometimes absent altogether, and the capitals are of simple and somewhat rude form. As regards the church itself, it was begun in 1212; finished together with its spherical roof in 1227; the sacristy built in 1316; and in 1683 the present painting and gilding of the interior of the church commenced.

Page 236. The view of the APOSTLE'S CHURCH from the New Market, is really fine and artistical: the church itself is of the finest class: it is moreover of much importance to the history of architecture, as affording another proof that the most flourishing period of the round-arch style must be referred to about the year 1200. The building of a church was commenced here by Archbishop Heribert 1021, and his successor Piligrin finished it 1035; but it was burnt in 1099, and again in 1199. The present church was built after the last burning, and nothing appears to have been left of the older one, except the lower part of the principal tower, and those adjoining portions, the mason-work of which consists of squared stone. That this is the case, appears plain from the words of Gelenius*, whose testi-

* Est vero nec ista basilica, quæ nostro æro exstat, Heribertinum opus, sed recentius post incendium quod sub Adolpho primo

referemus

mony is the more credible, since his brother was dean of the foundation to which the church belonged. Cesarius also, who wrote his dialogues 1222, relates (Book VIII. c. 63), that a rich man, whose name he mentions, having heard of the destruction of the church by fire, considered within himself that sin was certainly very heavy, but that large building materials must be heavier: if therefore he presented such materials for the purposes of the new building of the church, the holy apostle would on the day of judgment put these together with his good works in one scale, which would certainly lift up the one laden with his sins. It is said that he accordingly procured considerable quantities of these building materials to be taken to the spot, and that they were used in the foundation of the building. The nave of this building appears to have had a wooden roof; and at the erection of the vaults the simple columns were strengthened with pilasters and pillars, as may be clearly observed by a little attentive consideration of the structure. According to an inscription upon a sarcophagus (not in existence now) containing the relics of St Ursula in the choir of this church, it is said to have been vaulted in 1219: but this may

referemus ædificatum. Gelenius de admiranda sacra et civili magnitudine Coloniæ. Cologne, 1645, page 295. On reading this excellent account of all the ecclesiastical buildings situated in that place, we find two causes for regret:—*first*, the want of all and every architectural criticism, since in every part of Gelen, where his Archives do not clearly assign a later date to a building without further inquiry, he assigns to it the older date. But, *secondly*, it is more to be lamented, when we read the descriptions of the enormous quantities of treasures of art which the churches there possessed, and know but too well by what wretched means they have been entirely lost.

only refer to the arches of this choir, since the rest appears to belong to a later period.

Page 237. St Cunibert (see Boisserée, Plates 67 to 72) is of no less importance in the history of architecture. An older one, or, as the chronicle says, a "permagnifica" church was built by the Archbishop of this name towards 633, and consecrated to St Clemens. Archbishop Conrad erected in its stead the present one, and consecrated it in 1248 (the same year in which he laid the foundation stone of the cathedral), and dedicated it to the founder, who from that time was numbered among the saints. The high western tower with the adjoining transept rested upon very light walls, yet notwithstanding an enlargement undertaken by Bishop Wichbold of Culm, in the year 1378, they supported the tower during 450 years; their downfall, a few years ago, may most probably be attributed to the vigorous ringing of the bells, as practised in later times*. The upper part of this tower will probably not be rebuilt, and it would be well if the wooden ceiling intended for the proposed transept were omitted also. If its arches have safely supported a tower, the masonry work of which extends to a height of 70 feet during so long a

* It was evidently not the weight of such a peal of bells that injured the towers, but the vibration occasioned by the ringing. Unless the frame supporting the bells be tolerably high and somewhat elastic, the shaking of its basis becomes so powerful that it is imparted to the masonry work. Frequently, very frequently, do we see that the upper part of the frame is propped by means of struts and wedges, whereby every swinging of the bell exerts a powerful thrust against the walls, which the strongest masonry cannot, in the end, withstand; and by means of which a large number of towers have fallen down.

period, they will certainly be able to support a light vaulting. A wooden ceiling would certainly be discreditable to the whole corporation of builders, as also to our contemporaries: it would appear, on the one hand, as if the architects and builders were incapable of executing such an arched roof, and on the other hand, that the trifling cost of such a work were grudged. We may also hope that the west towers may hereafter be furnished with their old slender spires. The small gallery in the choir has precisely the same small columns as the decagon at St Gereon's; another proof of the trifling difference with respect to the date of both.

Page 238. St Peter, a very elegant church, built about 1524, possesses, besides the well-known disagreeable picture by Rubens, remarkably good glass paintings of 1528 and 1539; also a metal baptismal basin of 1569. The adjoining cloister with its wooden ceiling will show every sensible man how agreeable an impression may be conveyed by the most simple construction.

St Cecelia, directly opposite, belonging to the adjoining hospital, has in later times been used as a flour warehouse. It were much to be desired that it were given up to the hospital, and restored for the purpose of a chapel, which every hospital needs. It is, moreover, a remarkably pure specimen of the style of 1200: it has an older, and though scarcely known, yet remarkable portal in its interior; also an iron bell having precisely the form of the *Cow-bells* (so called): at the oval edge the width is $13\frac{3}{4}$ inches, and $8\frac{3}{4}$, by $15\frac{1}{2}$ inches high. It consists of three plates rivetted with copper nails, and is said to have been routed out of a pit formerly

near the church, by a sow in the year 613: it was baptized by the then ruling Archbishop Cunibert, and must be of very great age.

St Ursula.—Although founded in very old times, yet the present nave, and more especially the hall under the tower, so greatly resemble St Mauritius built in 1144, that these two must be contemporaries. We have authentic information that Archbishop Bruno had in 1135 consecrated an altar in that hall (*in porticu*): on the other hand, the choir and the attached southern nave are of much later date; as also the arched vaulting of the middle nave, which probably superseded an older ceiling of wood. Its interior contains some elegant details, and some very old pictures, very much injured by the wretched attempts made to restore them.

Page 238. St Severin, founded so early as 378, received the addition of an oratory by Archbishop Wichbold in 984; and in 1056 Archbishop Hermann completed some other buildings which his predecessors had commenced. Archbishop Hermann III. (who died 1099) appears also to have done something to the buildings. From him may probably originate the oldest part of the church, viz. the transept: the choir is of later date; still later is the nave; and the most recent is the beautiful western tower, built from 1394 to 1411.

Page 239. The Jesuits' Church, or the Church of the Virgin's Ascension, deserves to be called really magnificent. Few contain so artistical a plan and such happy proportions. This church was begun in 1621, after the destruction of a former one by fire, it was consecrated in 1629 (the adjoining college 1631), and displays, in

addition to the style of that period, a great many peculiarities in the pointed arch.

St Pantaleon was begun in 966 by Archbishop Bruno. The materials of the Roman bridge, which had been pulled down, and also of the castle at Deuz, were used in the construction of this church. It was consecrated by Archbishop Warin in 980. The present church, disfigured in various ways, may be of later date: of the church consecrated in 980 there probably remains the lower part of the great tower with the adjoining under and upper chapels; as the interior, as well as the high capitals over the pilasters at the outer walls of the northern gable, which is visible from the adjoining penitentiary, lead one to suppose. As it is common in Roman vaultings to find layers of brick alternating with quarried and hewn stones, so also is it here the case between the tufa wall-work. The Author has no where in Cologne noticed a similar construction: he therefore assumes this building to be the oldest in that place belonging to the Christian era. The vaulting of the church, as also the heightening of the tower, were done in 1620, by the Abbot Henry Spichernagel.

Page 240. Great St Martin (see Boisserée, Plates 10 to 15), also one of the finest churches in Cologne, is neither the original one, nor the one restored by Archbishop Bruno in 959: nay, even the towers which Archbishop Anno added to the choir in 1072 have disappeared; thus affording the clearest proof that the present bold tower must be of later date. Such is really the case, since it is coeval with the church, and was built by Abbot Gottschalk (1152 to 1173), while the

church was consecrated by Archbishop Philip, 1172. The nave appears originally to have had a wooden roof, and the present vaulting seems to have been built on a smaller scale after the great fire of 1478. The tower belongs to the boldest class, as appears by the ground-plan given by Boisserée. After the before-mentioned fire it remained 150 years without roof; until a merchant of the place, Ewald von Bacharach, bequeathed the money necessary to its construction. The beautiful baptismal font is by no means antique; but, judging from the style of its decorations, it appears to be rather of later than of older date than the church.

The present PROTESTANT church, formerly ST ANTHONY'S, was consecrated by Archbishop Frederick 1384, although Archbishop Wichbold already in 1298 had invited this order hither from France.

ST GEORGE (see Boisserée, Plates 21 to 24), built by Archbishop Anno, who has been already mentioned under the head St Gereon: the church was built in the beginning of his reign, towards 1060; the chapel in the great tower towards the end of his reign; at its consecration in 1074, a tumult arose among the citizens of Cologne, and Anno was expelled the city, because it was believed that he was going to build a citadel close to the gate of the then existing Cologne; and this surmise seems not to have been unreasonable; for the over-strong walls of this baptismal chapel appear to be nothing less than the foundation of a high strong fort-tower. Formerly the church was not vaulted; and if any one will take a little trouble to step upon the vaulting, he will not only see the decoration of the side walls,

originally free towards the church, but will also see with some surprise upon the painting the well-known meandering line painted gray on gray (grau in grau), and serving as a frieze to the former wooden roof. At the time of the vaulting the light pillars which support these walls being considered too weak for the vaulting, pillars were erected between some of the arcades, by means of which the present elegant alternation of large and small arch originated. The baptismal chapel may be considered as an excellent specimen of the round-arch style. The capitals of the columns, which appear at Gereon on the parts built scarcely ten years before, still in a rude lumpy form, are found here most excellently decorated. But we are sorry, very sorry to say, that in recent times all this has been painted over.

Page 241. St Columba, belonging to the fifteenth century, has many peculiarities, and much boldness and elegance in the disposition of its arches.

Of the Church of the Minorites, it is indeed known that the Order came to Cologne in 1220, and that their Church was consecrated in 1260, which however cannot be the present one. It has the most elegant of all wooden towers in Cologne. A similar smaller one occurs upon the before-mentioned Mary Chapel opposite the Council-house, and is also worth seeing.

St Andreas belongs also to the many objects worthy of attention in exuberant *Colonia*. Its original name was St Matthew *in fossa*. Its foundation is ascribed by Gelenius, one of its canons, to the holy Maternus, a second one is ascribed to Archbishop Willibert: a third church was consecrated by Archbishop Gero, in

978. Even of this one nothing now remains; for the nave displays in the forms and dispositions of its pillars a perfect similarity with St Castor of Coblentz, and may date from after the great fire of 1220: the high light choir, was erected 1414 by the same Archbishop Theoderick, from whom originated the before-mentioned Franciscan church at Andernach.

St Mauritius, a small church, and, with few exceptions, consisting almost, as it were, of one piece; built upon arches, and without any kind of buttresses*. Its

* There are so many old churches in the round-arch or Roman style, without *buttresses*, and which in later times were vaulted,—as also others which at their foundation were destined to be furnished with them, but nevertheless do not possess them,—that their general erection, on the introduction of the pointed style, cannot have originated, in the belief that they were absolutely necessary, since it was sufficiently well known, then as now, that high pointed cross arches exert a smaller thrust in proportion than round arches;—their introduction manifestly originated in the desire, not only to avoid large blank surfaces of walls, but also to make every thing lofty and transparent; in which case it was of course necessary to secure the proper stability by means of masses of wall placed transversely, from which were carried flying buttresses, for giving sufficient resistance to the point of pressure of the great vaults of the church-nave, over the light pierced galleries, which in England are called *triforium*. Moreover, these flying buttresses have been found superfluous in the most recent restorations at the cathedral. It was necessary to remove them in order to restore the weather-worn parts, and in doing so, they were found to be standing quite loose and tottering, and had consequently no supporting power.

Also, with respect to the later mode of building churches, with three naves of almost equal height under one and the same roof, separated by slender pillars, we may remark, that in attentively considering such a simple construction, buttresses, whether external or internal, are quite superfluous. The side wall resists the thrust of the vault over the narrow side aisles, by the power which it has from a suitable height and weight. To strengthen it with a view to its resisting the pressure of the large middle vault, would therefore be quite superfluous, as it can never exert any influence upon it. Were this even to move, it must of necessity lift up the light vaulting

date, 1144, being well ascertained, this church is of especial value to the history of art. We still see here the plain pillars with cubical capitals, which, like every thing here, were kept simple probably for want of money. There are also elegant little towers (the more recent one may be said to be quite new), and every thing is well adapted.

Of MARIA LYSKIRCHEN we know scarcely any thing; but, according to all its characteristics, it seems contemporary with St Cunibert. The exterior front displays one of the finest portals, similar to those at Great St Martin and St Gereon, and was excelled only by that one at St Cunibert, which, we are sorry to say, is destroyed.

Page 242. The URSULINES' CHURCH, built about 1705, in the Italian style, must not remain unnoticed. This church stands very conveniently in Cologne for enabling one to form a proper estimate of the value of that style.

Page 243. We have already spoken of the newer part of the TOWN-HALL in our remarks on the subject of the Cathedral picture. Respecting the building of the fine tower-like repository for the archives, there still exists the following record of the Council for the year 1406, with the indorsement, "*Concerning the Council Tower.*" "Item. Our lords of the council have agreed to erect

vaulting of the aisles, and fracture or separate it, before it could press the external walls out of the perpendicular. This thrust of the middle vault must therefore be sustained by very different means; for which purpose a massive wall in all times has been imposed upon the piers, and is, moreover, loaded with the greater part of the roof. That buttresses continue to be used, arises from habit; but that some of the more sagacious architects in olden times knew them to be unnecessary, is proved by so many of the Jesuits' churches, as well as the before-described church of St Peter, at Mentz.

an archive building adjoining the town-hall, for the good of the town as well as for the common good. Thus have our lords agreed that this building should be begun in the next summer, and it is to have a cellar, for keeping the wine of the town, a council-chamber, a strong room for the privileges of the town, and also a chamber upon arches for the use of the town." *Concordatum anno quo supra, feria quinta post assumptionem beatæ Mariæ.*

The clerks having with this accomplished their business, the workmen now began the building: they did as much every year as means would allow, and executed their work as well as it could be done; and proceeded very quietly until the building was completed, to the honour of its master, to whose honour it may yet long redound. It may be doubted whether it was completed so early as 1414: but in later times the repair of the building was neglected; several sculptures in stone, injured by the weather, fell down; and already, in the latter half of the philosophical century, the pictures as well as the gallery and the upper roof were pulled down. The opposite building belonging to the Town-hall was begun in 1608: the time when the beautiful Hanseatic hall was built is, we are sorry to say, unknown.

Page 244. The house *Gürzenich* was begun in 1441; and, according to a record of the council of the 11th December 1474, was completed at an expense of about 80,000 gulden. It contains in the lower part the Merchant-house; in the upper part a large hall 175 feet long, 70½ feet broad, and 24 feet high, with richly deco-

rated chimneys. It was called *Dantz Huiss Gürzenich tzo Coellen.*

Page 245. The ARSENAL is a solid, well constructed building, of the year 1601. The CLARA TOWER, as it is called, as also a similar one near St Mauritius, may be of Roman workmanship, but certainly belonging to the latest and worst period.

Page 246. The beautiful BERGEN TOWER at the upper end of the town cannot probably be ascribed to Archbishop Christopher Von Bergen; since in the whole collection of archbishops there is to be found neither a Christopher nor a Von Bergen. This together with another tower was erected by Archbishop Engelbert II., named Ryle, 1261. Both were taken by force of arms by the citizens in the skirmish which occurred in 1262; one of these was demolished in later times; and the other was restored a considerable time afterwards. The under part consisting of squared stones (*werstücken*), belongs, apparently, to the older building, but the upper part, judging by its profiles, belongs manifestly to a much later period, perhaps about the 14th century.

The Foss of the town was begun in 1181: the walls and towers were erected in 1187. On this subject a dispute arose with Archbishop Philip, which however was settled in 1188; but in order that right might at least remain right, it was ordered that four walls should be pulled down. The tomb (see Boisserée, Plate 38) of this Archbishop Philip (who died 1191) in the Cathedral appears on that account to be decorated with walls and towers, as well as with the armorial bearings of the

town. The city-towers and gates were already erected at that time, as we find by the complaint of Archbishop Engelbert II. 1262, that the citizens had taken them away from him. Most of the gates might, however, be referred to later times. The erection of the gate in the street of Bonn as a bulwark (*propugnaculum*) for St Severin is at least mentioned in the year 1469. The oldest is undoubtedly the Rhinegate.

Lastly, we have to mention the fine old houses in the Rhinestrasse, (No. 8, see Boisserée, Plates 34 to 36). A similar one in the old market No. 48; and, above all, the extremely elegant house of Mr *Etzweiler* named *am Hof*, and which at present certainly deserve to be called the most beautiful in Cologne. Also the knightly house with a slender little tower peculiar to houses of this description; it is numbered 5513, near St Mauritius. Also another, No. 7285, in the Ulrichsgasse. Another, No. 5313, in Benesisstrasse. Also No. 4798, in the New Market. Also some similar ones belonging to later times*. Many others, we are sorry to say, have disappeared. Finally, there are numerous houses which ought not to remain unnoticed, and which were erected about 1600: they are distinguished by windows placed in juxtaposition over the whole front, with heavy gables resting on light window-posts.

Whoever desires to obtain general information re-

* The Supplement of the Cologne Journal (Kölnische Zeitung) for the year 1835, Nos. IV. to IX., contains a full description of it. We should be very glad if the work mentioned in No. VII. on the former condition of Cologne, were encouraged to the fullest extent, in order that the rich collections of the three worthy editors may become generally known.

specting the history of this large and remarkable town, will find it well and briefly given in the work entitled "Cologne and Bonn," published in 1828, by J. P. Bachem, at Cologne. In addition to the work of Boisserée, which we have quoted, there are some sheets containing views of the most remarkable buildings, by Weyer, also published by Bachem. We may also mention a little book which no one ought to leave unread; it is entitled, "Collection of the Views of Cologne," by Weyer, with aphorisms of its history, by J. J. Lenzen, published 1827 at Cologne, by J. P. Bachem. One may learn moreover by this book what a great deal linguists can prove.

The foregoing remarks comprise pretty well all that the Author has collected respecting the buildings from Mayence, to Cologne. May they induce others who have more time and means at command to apply them both to the same purpose! Respecting the monuments of the upper and lower Rhine, as also of the Moselle, he has collected a good deal of information, but it is too scanty and incomplete to be included in these remarks.

The following table of the dimensions of many churches may be of some interest, inasmuch as there is no work containing their ground-plans reduced to one scale. The areas given below are restricted solely to the interiors of the buildings: the space occupied by columns is deducted, as also that occupied by sacristies, outer porticoes, and, in short, all that space which is not employed for public worship. The scale of measurement

is the Rhenish foot, equal to 139.13 Parisian lines, or 0.3138 metre: therefore 1015 square feet are equal to 100 square metres. The largest of the Egyptian pyramids is taken as a standard of comparison, as being the largest of all buildings.

	Square feet.
The area of the largest Egyptian Pyramid contains	376016
St Peter's at Rome	151323
Mosque at Cordova	129013
Cathedral of Seville	90184
Cathedral of Milan	87229
St Paul without Rome	75883
Cathedral of Florence	63877
Cathedral of Cologne	62918
Temple of Concord at Rome	56715
St Sophia at Constantinople	56576
Notre Dame at Paris	53161
York Cathedral	52668
St Paul's, London	52054
Cathedral at Antwerp	50442
Cathedral at Spires	45615
Minster at Ulm	43506
Cathedral at Strasburg	41702
St Genevieve at Paris	41107
St Salsprie at Paris	40621
Cathedral at Metz	38163
Cathedral at Mayence	37506
St Stephen in Vienna	32400
Westminster in London	32189
Mosque of the Sultan Soliman II. at Constantinople	31262
Cathedral at Magdeburg	31006
Cathedral at Fribourg	30101
Frauenkirche at Munich	29802
Cathedral at Padrebom	26833
Cathedral at Como	26579
Maria Maggiore at Rome	25370
Cathedral at Worms	22978
St Laurentius in Nuremburg	21730
Church at Xanten	20659

	Square feet.
New St Madelain at Paris (outside 91550)	19456
Cloister Church at Limburg on the Hardt	19208
Maria am Capitol in Cologne	19129
Pantheon at Rome	19092
Cloister Church at Altenberg	18432
St Sebald in Nuremburg	17361
Church of the Apostles at Cologne	15087
New Catholic Church at Darmstadt	14401
Mosque of the Sultan Achmet at Constantinople	14210
St Cunibert at Cologne	13761
St Elizabeth in Marburg	12322
Collegiate Church at Oberwesel	12205
St Stephen at Mayence	12175
Collegiate Church at Cleves	12083
Monastery Church at Laach	11841
New Catholic Church at Elberfeld	11785
Great St Martin, Cologne	10045
Cathedral of Limburg on the Lahn	9835
Cathedral at Aix la Chapelle	9704
Before its enlargement by the addition of a new Choir only	7536
St Martin's in Munstermayfeld	9284
St Castor in Coblentz	8899
Parish Church at Ahrweiler	8332
St Gereon at Cologne	8084
St Florin at Coblentz	7496
Liebfranenkirche at Coblentz	6741
Parish Church at Andernach	6700
New Church at Treis on the Moselle	6334
New Church at Güls on the Moselle	6180
Franciscan Church at Andernach	5937
Jesuits' Church at Coblentz	5835
Parish Church at Sinzig	5402
Parish Church at Mayen	5033
Parish Church at Boppard	4812
Collegiate Church of St Goar	4336
New Church of Cobern on the Moselle	4187
New Church at Valwig on the Moselle	2894
New Church in Kapellan	2392

NOTES

WRITTEN DURING AN ARCHITECTURAL TOUR

IN

PICARDY AND NORMANDY.

INTRODUCTION

A PERSON familiar with the chronological classification of English Gothic Architecture, naturally wishes to apply this classification in other countries. Besides the obvious and often-tried problem of the origin of this kind of architecture, many other questions offer themselves to any one who feels an interest in ecclesiastical edifices, either as monuments of antiquity or as works of art.—Are there in other countries the same successive styles of Gothic architecture as here, exhibiting the same leading characters, distinguished by the same differences?—Are the same great leading characteristics accompanied by the same details and groups of minuter peculiarities? Where the styles come in contact, do they manifest the same transitions, the same mutual accommodations and imitations as with us? And again; when we look at buildings with reference to their beauty, do the artists in the different countries appear to have been guided by the same principles and the same feelings? Each of the three styles of English Gothic has its peculiar kind of beauty, and probably each has its special votaries who admire the masterpieces of their favourite style as the perfection of the art. Do we find this to be the case elsewhere? And so far as we can detect

the supreme aim, the perfect ideal, of the genuine artists of each of the English styles, do we again meet with the same thought, the same purpose, in the great works of successive ages on the continent? In short, how close or how wide is the analogy which obtains in the principles and history of architecture in different parts of Europe?

To attempt to solve these problems generally is far from my present purpose. But it gives great interest to our journeyings through countries rich in ancient buildings, even to have such questions present to the thoughts; and it may perhaps not be unwelcome to some persons to read the reflexions which have arisen in the traveller's mind when employed in such speculations. In this hope it is, that the following few pages are printed.

It may be very reasonably objected to the remarks which I now venture to publish, that they are made from an arbitrary point of view, namely, the assumption of our English division of styles as a basis for the classification of other countries; and again, that in order to learn what the chronological succession of styles has been in France, or Germany, or Italy, we must carefully examine the documentary history of many buildings in each country, and not form our opinion of the relative date, merely by examination of the buildings themselves. To this I entirely assent; and I can only urge in reply, that I conceived that a person might safely

begin such an enquiry by a reference to the English styles, provided he were willing to give up the identity of the architecture of this with other countries as soon and as far as the facts directed him; that I am well aware that the subject requires much more labour and knowledge than I could contribute; but that I have done what my time and opportunities permitted; and that no one will rejoice more than myself, to find what I have put forwards superseded by the completer labours and sounder views of persons who may bring to this attractive study more leisure, talent, and research. I have strong hopes that, both with respect to Germany and France, such a consummation may take place at no remote period.

The reader must therefore consider the following pages as the result of a tour in the north of France, made in order to discover and criticise styles of architecture resembling the English styles. The remarks were written at various intervals during the tour itself, and are now given to the public with only slight corrections, and the introduction of the titles of the paragraphs.

Before producing these remarks, I will in a few words present the point of view from which they start. The ecclesiastical edifices in England, previous to the revival of the Italian taste in the time of Elizabeth, may be divided into four styles, which have been termed Norman, Early English, Deco-

rated and Perpendicular. The first of these styles is found prevailing all over Europe, and is plainly a debased imitation of Roman art, whence we may, in this wider view of it, term it Romanesque. The succeeding styles belong to a form of art in which a new set of principles reigns; the architecture which is thus created, may, at least in its general features, be traced over most parts of Europe, and is commonly indicated by the term Gothic. Even the subdivisions of this architecture seem to offer themselves to us in France and Germany, though with some modifications. The "Early English," in its pure English form, is not commonly found in those countries: its place in the series of styles is taken by what we may call the Early Gothic; a style which differs from the Early English, in some respects by the retention of Romanesque members, as the square abacus; in others by the anticipation of Decorated features, as geometrical tracery. The Early Gothic was developed into the Complete Gothic: but the existence in France of a genuine Decorated style, distinguished both from the preceding and succeeding styles, was a point which I considered doubtful when the following tour was begun. Where, however, it seemed to occur, I have called it French Decorated. The Perpendicular style does not occur in France and Germany, at least in the same form as here; those countries however possess analogous styles: the fact

being that the Complete Gothic, which was very nearly identical in great part of Europe, afterwards broke up and degenerated into different shapes in different countries; all of them more florid, more complex, and more feeble than the preceding style. The French style which stands in this position has been called by the antiquarians of that country Flamboyant, from the circumstance that the lines which form the tracery of the windows have usually a flame-like shape; just as Mr Rickman has termed the English style Perpendicular from the leading lines of its window-tracery. The other resemblances and differences of these two styles will hereafter come under our notice.

I shall proceed, without further preface, to the architectural researches of my companion and myself.

Abbeville to Amiens.

We began our speculations with Abbeville, where, as I knew from a previous visit, the church of St Wulfran has a splendid Flamboyant front. My companion was much struck with it, as any person acquainted with English architecture only must be. Indeed I think the first reflexion which occurs is, that the English never attained the art of making their Perpendicular fronts so rich and effective as this French one. A pediment between two towers, with three portals below, the whole covered with flowing tracery, open pannelling, and statues in niches, give to this church a very florid aspect; and the composition is very fine and well marked; some parts very graceful, as for instance two staircase turrets at the internal angles of the towers, terminated at top by beautiful open crowns. I will not however say more of this part; for the features which occur here will be found in other instances, where they can be made more intelligible by comparison. The rest of the church, though very lofty and in many respects splendid, is not worth much description, being only the nave of the intended building. The conception and proportions, however, seem to have something of that fondness for inordinate height which is so strikingly exemplified in Amiens and Beauvais, as we shall presently see.

My companion found at a stall near the cathedral of Abbeville a wretched lithograph of the west front, and along with this, a similar representation of the west front of a certain church of St Ricquier, which, though of very different composition, appeared, so far as any thing could appear from such evidence, to be a large and fine church of the same style. Upon enquiry, it turned out that St Ricquier was a village about two leagues from Abbeville to the east, and off the great road; but we resolved to take it on our route to Amiens, and set off upon our voyage of discovery accordingly.

Our expedition was eminently successful, for the church was a very splendid and interesting one, though we had never heard of it before, and found very eminent French antiquaries in the same predicament. The west front was Flamboyant as we had supposed; but far more beautiful, as well as more rich, than anything we had imagined.

The west front of St Ricquier is different in its design from St Wulfran at Abbeville, and from most cathedrals, and is in fact on a plan more suited to a moderate-sized church. It has only one tower, which occupies the center compartment. This tower, which of course makes the main feature of this façade, is managed with great skill and beauty. It is flanked immediately by two polygonal turrets richly pannelled, which end in crocketted and pinnacled conoids, on a level with the bottom

of the belfry windows. The lower part of the tower is of course occupied by a rich portal, which has statues in its sides and top. The arch of this portal is surmounted by a canopy, of a kind of ogee form peculiar to Flamboyant architecture; and at a distance above this (the intervening space being occupied by niches and statues) is again surmounted by a triangular canopy, of which the pinnacle pedestal rises so high, that before it was broken (as it now is) it must to the eye have connected the rich pannelling of the belfry story with the rich portal below. The center compartment is flanked by the ends of the two side aisles, which have also rich portal doors and windows above. The details of this front are quite exquisite; nothing can present a finer exhibition of well arranged and well executed splendour; but the very nature of the architecture, consisting as it does of so vast an accumulation of parts, makes it impossible to give any detailed description without inextricable confusion and intolerable tediousness.

On entering this fine church the effect is very beautiful, from its being not only very rich, but almost uniform, clean, and undisfigured by chairs; for it is not generally open, and has the floor of the nave occupied by benches. The nave is Flamboyant; and, as one strong feature of this style, it may be noticed, that the triforium string, carrying an open parapet, runs round the vaulting shafts in

polygons which have concave sides, and thus forms a sort of lantern at each shaft. But the eye is struck by an apparant anachronism in the piers themselves, which consist of four smaller pillars engaged in a larger circular one: this is a form which might be expected rather in the earlier period of the Gothic, than in this style, in which the piers are generally not divided into pillars, but merely channelled with mouldings, having small prismatic bases at various heights. On looking further, we find additional symptoms of a mixture of styles. The choir has not the same appearance of Flamboyant work as the nave; and many parts of it appear on examination to be like what we should call Early English, at least as high as the capitals and pier arches. For me who have seen Amiens, it is impossible not to judge that the piers and arches of this apse and of that, belong to the same date; or else that one instance was copied from the other, probably this from Amiens; for the capitals are here crumpled foliage, while there they are upright leaves, such as belong to the earlier style. The geometrical pannelling of the buttresses, which is seen inside in consequence of the intermediate space being formed into chapels, is another good mark of resemblance between the two buildings: it is seen in one or two compartments, and where this occurs, the vaulting is of the Early English form and elements. If there were any doubt of

the early style of this part, it would be removed by examining the vestry, which is a room of very decided character inside; and has, outside, in the face of a buttress, Early English pannels, with the mouldings and capitals exactly what they would be with us.

The interior of the church of St Ricquier, thus resolved into its two elements, the original Early Gothic construction which it has in common with Amiens, and the Flamboyant work raised upon this or adapted to it, of which we see so magnificent a developement in its front, is a very valuable and interesting specimen; and joined with what we may hope to see afterwards, will probably supply good materials for the proper appreciation of both these styles of French church architecture.

The road from St Ricquier to Amiens offers one or two country churches, which it is well to look at, because the relation of country churches to large and elaborate cathedrals, is in all Christian countries interesting and instructive; but I will not now dwell on this point. Through roads far more difficult of traverse than anything which in England would claim the title of road, we arrive at a place with the encouraging name of Ailly le Haut Clocher; where there is a church, upon the whole of Early English character, but with tracery in the windows, apparently contemporary, and with some other peculiar features. We pass another

"Haut Clocher" at a place called Belloy: but the spire here, though rather promising at a distance, turns out on nearer examination to be, as English eyes would judge, one of those vile imitations of Gothic which belong to the early part of the last century, in which the only principle appears to be to take care that no part is good architecture of any style then understood. It is well, after this specimen, to proceed directly to Amiens, where we are sure of finding something to admire.

Amiens.

The interior of the cathedral of Amiens is one of the most magnificent spectacles that architectural skill can ever have produced. The mind is filled and elevated by its enormous height, its lofty and many-coloured clerestory, its grand proportions, its noble simplicity. To a person fresh from English edifices, this effect is combined with surprize at finding a cathedral so complete and impressive, and yet in many respects so different from the familiar type of English cathedrals. The proportion of height to breadth is almost double of that to which we are accustomed: the lofty solid piers which bear up this height are far more massive in their plan than the light and graceful clusters of our English churches, each of them being, as I have said, a cylinder with four engaged columns: the polygonal

east apse is a feature which we seldom see, and no where so exhibited, and on such a scale: and the peculiar French arrangement which puts the walls at the outside edge of the buttresses, and thus forms interior chapels all round, in addition to the aisles, gives a vast multiplicity of perspective below, which fills out the idea produced by the gigantic height of the central space. Such terms will not be considered extravagant when it is recollected that the vault is half as high again as the roof of Westminster Abbey. Even the colossal figures of worshipping angels and saints, bending forwards at the bases of the piers of the choir, add to the sentiment which its architectural grandeur excites, and connect a devotional feeling with the upward lines which the eye traces to their concourse apparently in another region.

But my present business is rather with details than with generalities. Of what style, according to our rules, is this splendid building?—Does it fall in well with English classifications?—And if so, is the date of its erection that which we should have assigned to it? It was principally to solve such questions as these that we visited it.

To this I answer, that in a great measure it does fall in with our classification, but that this is to be understood with considerable modifications. It is, upon the whole, clearly what we should call Early English; and as the national

term thus appears to be inappropriate, what we may term Early Gothic: but in this Early Gothic we have, what in Early English we have not, abundance of that kind of tracery which Mr Rickman calls *geometrical*, consisting of circles, trefoils, quatrefoils, and other figures which may easily be made by the compasses. This tracery is manifestly original, and in saying this, I am not under the necessity of depending upon the tracery of the windows, though it would be inconceivable that this should *all* have been inserted afterwards; but the faces of the buttresses are also panelled with raised mouldings, forming tracery of exactly the same kind as that of the windows. If therefore we are to find a phrase to describe the architecture of Amiens, we must call it Early Gothic with Geometrical Tracery. The same kind of tracery appears in great profusion on the outside, in the canopies of the windows, the parapets of the walls, and other situations.

This Geometrical tracery with us belongs to the style which succeeds the Early English,—the Decorated; and in several other respects, as well as in this, Amiens has the features of this later style; thus the windows have, externally, triangular canopies, which run through the lines of the wall-parapet, and mix its tracery with theirs.

The reader is probably aware that Amiens is one of the strongholds of those who maintain that

the advances of French Gothic architecture are anterior to the corresponding steps of English work. Whittingham's arguments are almost founded upon it, and very plausible they must be allowed at first sight to be. Amiens was built about the same time as Salisbury, both being begun a few years before 1250; and at Salisbury there is little or no tracery, though there are manifest symptoms that our countrymen were approaching to that kind of decoration. Upon the whole it is undeniable that Amiens in such features approaches nearer to our style of the 14th century than Salisbury does.

But on looking a little further, it is by no means so clear that the French architecture is advanced much beyond the English. Let us give up the point of tracery and look to other matters. The French building has not yet acquired the beautiful complex piers of Salisbury, in which the slender detached shafts combine so well with the deep bundles of arch mouldings: instead of these mouldings it has a few plain members, which with us would belong to a much earlier date; it has a square abacus to most of the single shafts, a Norman feature which in England disappeared at the first dawn of good Gothic. It has no where the skilful accumulation of small parts producing deep lines of shades, yet exquisitely bold and free in the details, which we find so constantly in our

Early English work. And even with regard to tracery we are not to make our concessions too largely; for if Salisbury has only those perforations of the heads of pannels and windows which seem to be the mere germs of tracery, Bishop Lucy's work at Winchester, which is within a very few years of 1200, has these germs at least as much developed as Amiens; and Amiens, in many of its parts, as for instance in the triforium of the nave, has such perforations in the place of tracery.

The fact appears to be, so far as our evidence yet reaches, that our peculiar Early English style, which produced its effects by grouping single lancet windows, and which from choice or ignorance used no tracery, was not expanded into a distinct style in this part of France; and that here, as I have shewn was the case in Germany also, the Gothic forms and combinations were not fully developed till the windows began to be constructed with the tracery of our Decorated period. The Early English, so far as Amiens proves, was peculiarly an English style.

It may serve to bring under notice some of the features of this building, if we attempt to trace the order of style in the different parts. The oldest part, according to our mode of judging, would be the nave; for the triforium here has no tracery, but only a trefoil pierced in the head of its double

lights; while the triforium of the choir has tracery, and has, over the arch, a triangular crocketted canopy.

The transept makes the transition from the nave to the choir; its west side is the same as the nave, while its east side resembles the choir in having tracery, but wants the triangular canopy.

The aisles of the choir have the simplest, and therefore probably the earliest, geometrical tracery.

The tracery of the triforium of the choir is less simple; yet this circumstance must not be urged too far, for the clerestory, which is of course later than the triforium, has also simple geometrical tracery.

The side chapels of the nave have flowing tracery, and are additions of later date. Indeed the original outline of the buttresses, with its set-offs, may be seen in the walls which separate these chapels.

The back of the north tower of the west front is clearly of Flamboyant work.

With respect to this west front, the three great gateways which compose the lower part of it are very remarkable. They are probably of the earliest period of the cathedral, yet they are enormously deep, and have their sides filled with statues. This mode of forming the portals seems to have been at all periods a favourite arrangement with the

French architects. In this instance, however, we cannot consider them as having attained the best mode of realizing their conception; for the gateway sides recede in a manner so rapid and so little architectural, that the recesses have quite the appearance of caverns; and all their statuary does not succeed in relieving their gloomy look, or in bringing out any one clear and satisfactory line or surface.

The general external form and appearance of Amiens is by no means so fine as the interior effect. The exterior appears to be altogether sacrificed to the interior; the enormous roof oppresses all the rest of the building, and the towers, though high enough, or nearly so, for the direct view of the west front, scarcely reach the ridge of the roof, and have no prominent effect in a side-view. Indeed they appear not to have been constructed with such a hope; for instead of being substantial square towers, they are thin in the direction of the length of the cathedral, as if they were not intended to be more than features of the western mask of the building. I shall not however at present dwell upon the general question of outline, nor add any thing more on the subject of that of Amiens.

Beauvais.

The cathedral of Beauvais at first sight much resembles the choir of Amiens. There is the same amazing height; the same gigantic clerestory, al-

most as light as a greenhouse and taller of itself than most churches; the same tall piers and narrow arches. After the first sensation of wonder is past, the second impression, on the mind of one who brings with him the recollection of Amiens, is, that the building now before us, though perhaps more extraordinary, is less pleasing and harmonious. The extension of the dimensions upwards is in this instance carried to a degree which strikes the spectator as exaggeration. The pier-arch spaces lose all proportion, and the clerestory has such an excess of light, that it scarcely retains an architectural character. Amiens is a giant in repose, Beauvais a tall man on tiptoe.

Considered with reference to the classification of French architecture, the resemblance of Beauvais to Amiens is at first prominent. The plan of the piers is the same; the capitals are similarly formed of Early English stiff leaves with free curling tips, and run round the center pier as well as the shafts; the arches are of the same form in the apse, namely, narrow-pointed-stilted; and the arch mouldings have the same very simple Early English character; the tracery of the triforium and of the clerestory is, like that of Amiens, of the geometrical kind; the lateral faces of the buttresses which, seen internally, divide the apsidal chapels, are ornamented with lines of geometrical tracery.

There are however differences which are soon

perceived. The pier-arch spaces are narrower, the clerestory windows much taller, and the side aisles have equilateral windows in their heads, being taller than the outer chapels by a space which is filled by this window and by a quasi-triforium below it, formed of a little range of Early English trefoil-headed arches on short little shafts. The vaulting of the choir is also peculiar, being in six-celled compartments like several of the German cathedrals; and the vaulting of the side aisles differs remarkably from the German practice, in that each vaulting compartment corresponds to two of the pier arches; an arrangement which is connected with several peculiarities of detail.

One of these peculiarities is that the piers seem to have alternate differences, which we may explain by calling them principal and secondary piers. The sections of both kinds are nearly the same, but the capitals are different, those of the principal piers being, as has been said, clearly Early English, while the secondary piers have capitals of crumpled foliage (of a Corinthianizing character in some instances) and other differences in the mouldings. We perceive too, that the wall below the triforium offers traces of arch lines superseded by alterations, as if the principal piers had at first been the only ones, and had supported wide arches, and the secondary piers had been

afterwards inserted. The space between the heads of each of the two arches into which the original arch is thus divided is occupied by a circle quartrefoiled, which circle is, of course, cut in two by the vaulting shaft of the secondary pier.

This suggests the notion that the secondary piers have really been inserted; indeed the vast height and boldness of the clerestory may readily be conceived to be the work of an architect who intended to go to the extreme of architectural possibility, and who having in fact gone beyond this limit, made it subsequently necessary to provide additional supports for his church in the air.

This was the opinion which I had formed at a preceding visit; but it was pointed out to me by my fellow traveller, whose judgment was authority on such a point, that the supposition of the secondary piers being inserted after the erection of the clerestory, was quite untenable; for the subdivisions of the clerestory and triforium do not run from the vaulting shafts of one principal pier to those of another *without* making allowance for the space occupied by the vaulting shafts of the secondary piers, as must have been the case on my hypothesis; on the contrary they are arranged so as to leave such a space, and have exactly the same reference to the shafts and members of the secondary as of the principal piers:

besides which, he declared the insertion, after the clerestory had been formed, to be impossible as a matter of construction. At the same time he allowed that the work and circumstances of these secondary piers had every appearance of insertion.

On looking more closely at the triforium and clerestory, it is seen that the capitals are not of the Early English character, like the parts below. They are of crumpled foliage in two rows, and have all the appearance of our Decorated work, or of that of St Ouen at Rouen (1330).

We appear therefore to be left to the supposition that the secondary piers were inserted *after* the erection of the principal piers, and *before* that of the triforium; and with this supposition the appearances, so far as they have yet been described, will agree. And we thus find the French architecture arranging itself according to the divisions already suggested: the Early Gothic of Amiens, and the Decorated Gothic of St Ouen, succeeding each other; the Romanesque preceding these two, and the style which we have called Flamboyant succeeding them, by a transition of which we have still to investigate the details.

We have made out the order of the dates of different parts of the building from internal evidence alone: and the above conclusions were in fact obtained without any knowledge of the history

of Beauvais. We may now refer to what is known of the building of this cathedral, in order to see how far it agrees with these determinations. We find that after the destruction of the ancient cathedral, founded in 991, of which the remains are probably the ruinous buildings still remaining to the west of the cathedral, Miles of Nanteuil, Bishop of Beauvais, undertook in 1225 (that is, five years after the date of the commencement of Amiens) to rebuild the cathedral on a more extensive plan. The piers of the building thus commenced being placed at too great a distance from each other, the vaulting fell in, in spite of the precautions which had been taken to support it, by using iron braces and chains to hold the side walls together. The vaulting is said to have been reconstructed and finished in 1272, but the architect was again unsuccessful, for it once more fell in, twelve years afterwards, in 1284. This accident having proved the insufficiency of iron braces to hold the piers in their places, with so great a height and so wide a span as had been given them, it was resolved to erect *intermediate piers* in the spaces which intervene between the original ones. Forty years were employed in executing this plan of repairs. In 1338 the Bishop and Chapter chose Enguerrand, surnamed the Rich, as their architect, intending to complete the cathe-

dral*, and the work was begun, and continued with zeal for several years; but the intestine wars which so repeatedly desolated France during more than a century, and the occupation of a great part of its territory by the English army, interrupted this labour; and it was not resumed till 1500, under the episcopate of Villiers de l'Isle Adam, who laid the first stone of the transept with a very splendid ceremony. The rest of the chronology is less likely to give rise to any difficulty.

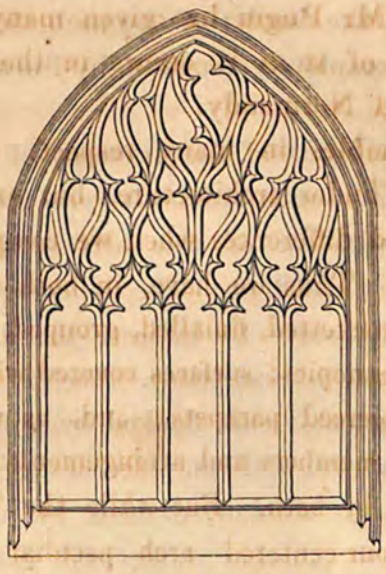
The Flamboyant Style.

The architecture of the Transept of Beauvais, which thus appears to have been begun in 1500, and which was finished in 1555, is an example of the style which we have called Flamboyant, and may serve as an opportunity for describing some of the characteristics of that style. The kind of architecture which belongs to this date in France must have been noticed by most travellers, for it is very abundant, and has a strong general likeness; but I do not know that any one has given a technical account of its peculiarities. A learned English antiquary has described a particular portion of this kind of architecture by the name Burgun-

* M. Gilbert says the choir, but the only meaning consistent with the facts, is the one I have given.

dian; and Mr Pugin has given many details. I shall speak of it as it occurs in the churches of Picardy and Normandy.

It resembles in many respects our Perpendicular, or Tudor architecture, but exhibits many very marked differences when we compare it with that style. Thus we have, in both these styles, pinnacles crocketted, finialled, grouped, and formed into niche-canopies; surfaces covered with moulded pannels; pierced parapets; and, as we advance, Italianized members and arrangements make their appearance in both. But while the Tudor style has the four-centered arch peculiar to it, the Flamboyant has the three-centered, and the horizontal line arched at the ends. It is also far more common in the French than in the English style to have in various situations a multitude of niches filled with statuary, and especially in the hollow mouldings of arches. The lines of Flamboyant panneling and tracery are not by any means distinguished, as those of the Tudor times with us are, by the universal predominance of perpendicular lines. On the contrary, they run into peculiar flame-like forms, from which the name has been taken. This will be best explained by the following figure, which is copied from Mr Rickman's account of French Architecture, (*Archæologia*, and *Architecture*, 4th Edition).



Some of the features of the Tudor and the Flamboyant styles which most deviate from the Gothic of the better times, probably indicate in both a nearer approach to the period of the revival of the classical architecture; as—polygonal pedestals and abacusses with concave sides—the prevalence of hollow horizontal projecting mouldings filled with flowers—strings terminated by lines of coronal points above—and lines curved and broken in various ways, substituted for the straight sides of the triangular heads of pinnacles. The superiority in richness and variety appears to be on the side of the French style, at least we have nothing which can well be compared with the richest members of their work; especially their portals with free tracery hanging like an edging

of lace from the border of the arch, and the arch-mouldings completely replaced by lines of canopies and statues.

The two fronts of the transept of Beauvais to the north and south are both very fine specimens of the application of this architecture, though they are very different. The following comparison of them will serve to indicate the difference of which the style is susceptible. Each of these fronts consists of a gable-end, flanked by projecting buttresses or turrets, and composed of a portal; then, above, a large window, divided by a horizontal gallery; then another horizontal gallery above this; and the gable above all. The gable, upper window, lower window, and portal, recede in order each behind the others; and hence the portal has a deep recess, which is closed by a double door with an ornamented straight-topped arch to each doorway.

The north transept is one of the specimens of the Flamboyant style which approaches most nearly to our Perpendicular. Its effect depends more upon large members, lines and shadows, and the proportion of decoration of different parts, and less upon carving and tracery, than is usual; and there is a great predominance of perpendicular lines. The portal has its arch-mouldings made up of three lines of free feathered tracery, each accompanied by a string of foliage, and alter-

nating with these, two bold masses of mouldings, the middle member of each mass being well marked, and accompanied by finer strings, also well marked. The sides of the portal are occupied by fine pinnacles and niches. The original wooden doors remain, and are of excellent work, and very rich. The head of the doors has two straight-topped arches (flowered mouldings) under one arch. The tympanum is flat, beautifully sculptured with a genealogical tree, with escutcheons hanging from each branch mixed with feathered pannels. The first parapet is solid panneling, good and simple; the second parapet is bold open flowing panneling, with pinnacles at intervals; the third parapet is also of open panneling, and behind this the gable is enriched with attached pinnacles in pairs. The portal has a triangular canopy with crockets, large and few as usual in this style; which ought to have, and probably has had, a proportional pinnacle—now gone. This canopy is crossed by the first parapet, and the remaining spandrel spaces are occupied with perpendicular-lined feathered panneling. The window has tracery with feathered heads below the transom gallery; and, in the head of the window itself, very rich flowing tracery forming a fine circle. The buttresses are plain and bold, the eastern one having a staircase turret engaged in its angle.

The leading difference of the south transept, at first sight, is in the flanking turrets, which here take the place of the buttresses. These have almost an Italianizing character; they consist of round or polygonal stories of decreasing diameter as they ascend, with rich foliage mouldings running round the upper edges of the parapets, and all the faces covered with pinnacles and canopies of abundant richness. The turrets are round, at the level of the first parapet, and also at top; and are decagons (engaged) in other parts. But there are other differences from the north transept, all of which tend to make this front a more indiscriminate mass of ornament than the other. The portal parapet is open, and the transom-gallery parapet has no pinnacles; both are finished upwards with lines of double feathering of various patterns, somewhat resembling in effect our Tudor flower. The arch-mouldings are occupied in the usual way by canopies over figures and groups, and the tympanum by projecting niches. There are also in this front variations which seem to indicate that the architect was no longer satisfied with the established Gothic forms. Thus we have these figures in the heads of pinnacles and in



tracery, instead of the usual straight lines and arches, and the polygonal plan of the tower has concave sides.

There is, however, one part of this front which exhibits a more elegant management of the perpendicular principle than appears in the north front. The outer line of free feathered tracery round the portal arch is framed as if it were the feathered head of a perpendicularly panneled space, so that the primary arches of the feathering have unequal sides. In the corresponding member on the other front, the free tracery is of the usual kind, with the *addition* of some of the lines of the perpendicular panneling of the spandrel, which appear there by interpenetration.

Outline of French Cathedrals.

Before I quit this cathedral, I may make an observation or two on the consequences of the enormous height which the French architects were so fond of giving to their cathedrals. The effect, under various circumstances, is no doubt very striking; as, for instance, when we view them from a favourable position in the interior, and find the eye carried by their leading members from the floor along the graceful lines of the tracery, to the figured and coloured lights of the clerestory, and further still to the remote region of the vaulting

lines—a region so distant, yet still architecturally connected with the spot on which we stand; and this configuration, repeated by each of the compartments, under a varied perspectival aspect, produces an impression so different from that of smaller buildings, that it may well be called magical. Externally also, when seen at a distance, rising over the tallest houses and trees of the city, with no deficiency of visible height, the appearance of such a church is truly amazing. But when we come to look more steadily at the external form of this mass, we find that its height has extinguished almost all possibility of well-proportioned dimensions and parts. Amiens, which is as long as some of our largest English cathedrals, looks short, and Beauvais, having no nave, is absolutely shapeless. Moreover the enormous height of the roof, which has no architectural character, is very fatal to grace, and the vertical and flying buttresses which rise around the building are so many and so large, that they utterly obliterate its outline. At Beauvais, the buttresses are broad pillars of wall with three lines of flying buttresses connecting them with the building, and have, at a distance, where alone the eye can disentangle them, the effect of what they really are, an exterior scaffolding of stone. The pinnacles on the tops of these pillars are quite insignificant compared with the masses on which they stand,

like a man at the top of a tower; and yet could not be much larger without interfering with the dignity of the building itself, by altering the scale of the parts. The clerestory is the only part of the building seen at a distance, although the side aisles are very tall: we lose therefore here all effect of the cathedral arrangement. And, with this enormous height, it becomes impossible to have any towers which bear such a proportion to the rest of the building as to give it a good outline. Those of Amiens are hardly free of the roof line; and yet are not, even so far, well-made towers, for the dimension in the length of the building is such as to make them rather a front screen than anything else. At Beauvais a center tower was built, which was 455 French feet high; but this fell in the space of 12 years from its erection, probably in a great measure in consequence of being built before the nave was there to receive its lateral pressure.

At every stage of the building of this cathedral of Beauvais, indeed, the "boldness" of the architects appears to have been pushed beyond the limits of prudence, and to have been repaid with defeat. The well proportioned magnificence of the neighbouring edifice of Amiens, perhaps, excited their emulation. It has already been noticed, that the first attempts to erect the clerestory to its present height ended in its fall, and the arrange-

ment of the pier-arches and of the clerestory-windows still tells the story of this failure, as well as the details of masonry and ornament. The erection of the tower is said to have been resolved on after 1555, instead of the continuation of the nave, in consequence of the fame which Michael Angelo had obtained by the construction of St Peter's. The Tramontane architects Waart and Marechal, wished, it is said, to shew that *their* style was capable of reaching a greater height than that of the Greeks and Romans. If they had not, in some measure, forgotten or neglected the principles of the Gothic architects of the better times of the art, perhaps their boast might have been verified; as it was, the architect who was sent to examine the tower when it was suspected to be dangerous, had but just time to warn the congregation of its approaching fall, which took place before he reached the bottom.

There is at Beauvais another church, that of St Stephen, which offers some points worthy our notice. The nave is of that Transition style from Romanesque to Gothic, of which we have examples in England, and with which I had become so familiar in Germany. It is extremely plain, with round pier-arches and small round-headed clerestory windows. The vaulting shafts are clusters of

three, with the Early English, (that is the Attic) base, and rude Early-English-formed capitals; and some of the pier-shafts towards the side-aisles are edged, as in Early English is common.

The west front of this church very much resembles a plain Early English front of our own country, having three portals in projecting high-pitched pediments, (like Salisbury). Above these, the wall is pierced in the center compartment with three lancet windows; and above these, with a circular window, and also with a circular window in each lateral compartment. The arches of the lateral portals have good Early English mouldings; that of the center has these replaced by several lines of niche-canopies; the doors are double, leaving a large tympanum. This, being probably an Early Gothic front, serves to shew the prevalence of the conception on which most of the French west fronts seem to be formed. The front of Amiens is the same in arrangement as this of St Stephen's; but there all the three vast recesses of the portal-arches have the mouldings filled with canopies and statues. In the later edifices this general form of front receives additional richness in various ways: the pediment is cut into open tracery, and has (in Flamboyant work) an open gallery parapet carried across it: the window fills the whole space between the buttresses, and has also a transom gallery with open parapet carried across it, the tracery of the window-head still exhi-

biting the circle: and another parapet, with a gallery, runs along the bottom of the gable; while all the flat parts are covered with panneling, and the arches are edged with free tracery.

Comparison of French Decorated and Flamboyant. Rouen.

We appear, in proceeding to Rouen, to have a good chance of discovering more clearly than we have hitherto done, the distinctive features of the successive styles of French Gothic; for that city possesses vast treasures of architecture, and a series of highly ornamented edifices of very distant dates. We may, in the first place, take the two fronts of the transept of the Cathedral, looking north and south, for these (the central parts of them) are clear examples of our Decorated style with geometrical tracery, triangular canopies, mullions having capitals of crumpled foliage, and so forth. Both these fronts are portals which may be compared with those of the Flamboyant class in order to discover the leading differences.

On such a comparison, we find the following circumstances in the *north* front of the Cathedral different from those which would occur in a Flamboyant front of the same kind. There is no panneling in the spandrels of portal or window, the crockets of the canopies are of moderate size and distance.

The mouldings do not any of them consist of lines of woven foliage cut hollow and projecting, but when the moulding is enriched with foliage, the leaves adhere to the solid form and curl outwards at the points only. The buttresses which flank this portal are simple but good; they are square with a single canopied panneling in the breadth of the outward face, subdivided and having geometrical tracery. There is no transom gallery. The sides of the portal have several solid square pedestals with their faces sculptured in bas relief in small compartments. The arch-mouldings have three lines of statues, but are much more clear and simple in their general appearance than the usual character of Flamboyant work, being well divided into three by two strong lines of mouldings. The tracery is geometrical, except the pediment of the window-canopy, and the mouldings are rounds, well made out and *not* faced with a fillet. The effect of this rich front, between the moderately ornamented and well divided buttresses, is better than that either of the north front of Beauvais, where these members are too plain, or of the south front of the same Cathedral, where they are too rich.

The south front of the transept agrees in most of the above characters with the north; but there are some differences which, judging from the building itself, would induce us to place it a little later, as it appears to have made an advance towards the

Flamboyant style. The flanking buttresses are much more broken and ornamented; having at their front angles on the set-offs, *buttressets** placed diagonally; and these have, in the first and second story, open pinnacles formed of square crocketted and pinnacled pyramids set on four slight shafts, and inclosing statues. There are also statues in the front face of the third story of the buttress. The tracery in the canopy-heads, and in the wheel of the window-head, is more studiously varied than the opposite front, but is not so graceful. The canopies, both of the portal and of the lowest pannel-head on the front of the buttresses, are doubly-feathered outwards, instead of being crocketted. The canopy-head of the window, instead of tracery, is occupied by a bold group of statuary with overhanging canopies.

The above description was written previously to making any reference to history, either for the absolute date, or the order of priority of the two fronts. It appears, by historical research, that the "Booksellers' Portal," which is the one to the north, so called because a small court which it terminates was occupied by persons of that trade, was begun in 1280. This is a little, and but a little earlier, than the date we should assign to it in England.

* I give this name to members which have the form of buttresses, but which are so small or so subordinate as to be obviously only decorative.

The upper part was not completed till 1478. In fact, the gable, and the gallery which crosses the lower part of the gable, are of Flamboyant details.

The building of the south front, the portal de la Calende, is not recorded separately from the other; so that *probably* the difference of time was not great.

St Ouen.

If we now go to the beautiful church of St Ouen, we shall find materials for a similar comparison. Every one has seen or heard of its exquisite tower, which is square to a certain height, and then supports an octagonal crown of open work, by means of fine flying buttresses. The whole of the transept and choir, with the lower part of the tower, are manifestly of our Decorated character. But the upper story of the square part, and the octagonal crown, seem at first sight to offer some grounds for thinking them of a later date: for the tracery, which is of the geometrical kind below, becomes here flowing, and displays some rather fantastical forms. The corner-turrets of the square tower have pepper-box tops; and its parapet has open panneling, of which the tracery compartments exhibit a reference to a mid rib, a character which appears to be very common in the Flamboyant tracery of windows. A string which

runs round the middle of the octagon is finished upwards with an ornament resembling the Tudor flower, and the open parapet at the top is set with fleurs de lis, which are seen quite free against the sky. Yet a closer examination makes us again doubt this being of a later style than the Decorated. As to the tracery, the oddest-looking of the forms is produced by tracing a fleur de lis; and is, it may be supposed, sufficiently explained



by the grounds of selection of that cognisance. The crockets are not distant and large, which is the Flamboyant fashion, but moderate in size and as close as usual. The window sides have not the Flamboyant double hollow; the mullions have bases and capitals; and in the highest part, where the windows have triangular canopies of open work, these canopies cut through and intercept the tracery of the open parapet, instead of having the lines of this parapet carried across them, as we often find in the Flamboyant style. The buttresses at the angle of the square tower are simple and very

moderately adorned, having no canopies or panneling, except when we reach the pinnacle faces above the highest set-offs. Altogether this front may, from external evidence, be Decorated and not Flamboyant, except the art of adaptation was very studiously practised.

The nave, on the other hand, appears certainly to be of the later style, though very much modified by being accommodated to the choir. The most decisive evidence perhaps of the Flamboyant character is to be found in the bases of the piers, which consist, as in the later style is so common, of various columns and shafts with certain nearly constant mouldings and long polygonal pedestals, engaged in a moulded pier, the shafts dying into the projections of the pier as they run downwards, and the mouldings of the various shafts and of the pier being at different heights, the former intercepting the latter and giving rise to appearances of interpenetration. This peculiar base appears to be decisive of a late style. The base of the choir suits perfectly well with the Decorated character of that part of the building, and is quite different from the one just described, having two flattened sloping rounds and a polygonal pedestal with a string and notch below, while the section also consists of rounds and hollows.

But the nave, if it be thus clearly of later times, shews that the artists of those times could,

in adapting their works to those of earlier date, divest themselves of a great part of their peculiarities; for the capitals and arch-mouldings of the nave and choir are apparently the same, and though the tracery in the nave is flowing, the lines are rounds not filleted. Moreover the mullions have bases, and though in the side-aisles they have no capitals, in the clerestory they have capitals like those of the choir; and these are not usual Flamboyant characters.

We are led therefore to consider the nave as Flamboyant much adapted to Decorated, while the octagonal tower becomes again doubtful in consequence of this evidence of the habit and talent of adaptation.

Turning to the history, we find that after the building of the earlier parts with which we are not here concerned, the eastern part of the church was founded by Bishop Marcdargent in 1318, and built from the apse to the transept in 21 years, a date which agrees perfectly with the pure and beautiful exhibition of the *Decorated style* in the choir. Though Charles the Sixth gave 30,000 livres in 1380 towards the completion of this church, it does not appear that any progress was made till about 1400, when Alexander de Berneval, as architect, founded or finished the transept. The two roses which form the heads of the north and south windows were executed in 1439. The

heads of these windows are semicircular, with flowers in the hollow moulding. Thus, though the general character of the transept is a very ornamented stage of the Decorated style, such as we might expect to find in 1400, we discover, when we reach a period so late as 1439, marks of the succeeding style.

In 1464 a grant of indulgences was obtained from Rome, with the result of which the nave was begun and two compartments executed, according to the historians. The rest of the nave is stated to have been finished in the space from 1491 to 1515 by Bishop Boyer. The front was built in 1515 by Cardinal Cibo. I have not spoken of it, because it is obviously of late character; though its circular window of graceful tracery, with the smallest mouldings subordinated to the large ones by four successive gradations of size, and the featherings all tipped with flowers, is beautiful enough to do credit to any age.

It appears then from history that the nave is late, as we had inferred it to be from the architecture, and that the resemblances between this and the preceding style are the marks not of transition, but of accommodation; and it may be observed that this explains the existence of a door on the south side of the nave, which is of the most manifest Flamboyant character, having one of the fancifully shaped canopies of which we

have spoken, but which is so connected with the masonry of the rest of that part that we cannot but conceive it contemporaneous.

On similar authority it appears that the tower was finished towards the end of the 15th century; and we must therefore consider this part of the building as another example of accommodation. We may also draw the inference that the differences which are noticed between this and other instances of Flamboyant architecture, (as the triangular window-canopy interrupting the parapet,) are of less consequence, and the resemblances, (as the flowing tracery and the pannels of tracery which have a mid rib,) of more consequence, than we had supposed in our former decision.

It appears from the above account that two compartments of the nave next the transept are stated to have been built 30 or 40 years earlier than the remainder. If we go back to the church to see whether we find any traces of this interruption, we have no difficulty in discovering them; for the two piers of the nave next the transept have the same bases and the same section as those of the choir, which are very different, as we have seen, from those of the arch of the nave; and these latter have also corbels and canopies forming niches in their fronts, which those towards the transept have not. Nor is it difficult to trace the line of division of the two portions of masonry. This

correspondence of the building with the narrative, is a valuable confirmation of our interpretation of the latter.

The work of 1464 agrees therefore, in the bases of the piers, as well as in most other features, with that of the early part of the 14th century. This is no doubt an accommodation, and this accommodation was discontinued in the succeeding piers, because, when it was resolved to put niches in front of the piers, it was thought right that the prismatic *stem* of the corbel should enter into the composition of the pier, and similar prismatic shafts were introduced on other sides of the same pier, according to some notion or other of congruity; the pier thus lost its Decorated character, and became, as to its base at least, unequivocally Flamboyant.

But notwithstanding this use of accommodation, there are still general differences between the work of the 13th and that of the middle of the 14th century. One of these differences is the use of flowing tracery in the latter, and of geometrical tracery at the former epoch, which we find to obtain at St Ouen, and which applies to the two earlier compartments of the nave as well as the rest.

Yet we may observe that geometrical tracery appears to have prevailed in France to a much later period than in England, and indeed not to

have been entirely displaced till very late. Still upon the whole, the difference between geometrical and flowing tracery is one which marks a difference of style. It is remarkable enough that the difference of the kind of tracery, which is so sure a mark in English work, is also a very important feature in French architecture, though the peculiarities are altogether changed by which our judgment is directed. In England the style which succeeds the Decorated is the *Perpendicular;* and the arrangement of the tracery of windows which gave rise to this denomination is so common, that we rarely find a window after 1400, in which vertical lines are not introduced in a manner different from that which would have been adopted at an earlier period. In France, the perpendicular principle of making out the tracery of windows never seems to have come into play; indeed one is not surprized at this, half so much as at the universal prevalence of the principle in England. It is true that the windows, and more especially the panneling of the French, have often a multitude of vertical lines; but this character in them never takes the lead, as with us. The windows of this time, and similar spaces in the architecture, are occupied by tracery which we very properly call, as M. Le Prevost has called it, Flamboyant. It is somewhat curious that window-tracery should in both countries be so distinctive a mark of style

and date, while the forms connected with the same style in the two countries are entirely different.

Comparison of Early French and Early English.

Louviers.

Another comparison which we shall soon have to make is, that of the French Early Gothic, with the English corresponding style, which we have been accustomed to call the Early English. Louviers, which we pass at this period, offers some curious points for this comparison. The original portion is of 1218, and there cannot be any contest on the subject of this date, since this is the period when the church was built in a new situation (A. L. P.) The architecture answers very tolerably to this period, with some little anticipation on the progress of things in England. The clerestory windows are not threes or fives of lancets, nor do the French *ever* appear to have had these combinations; they are two-light windows struggling towards tracery by means of circles in the head of the pair, and made into one window by a roll moulding running round the whole head, which thus assumes a trefoil form. The triforium is a little square opening in each compartment, bisected by a shaft, and included in a trefoil pannel formed by a roll moulding; the square opening admitting daylight. The piers have clear Early English

foliage-capitals, but are singularly short; and the arch moulding has an external roll and a truncated edge, but the section has a squareness which in England was soon abandoned for a rich slope of rolls. There are lancet windows in the choir, which, however, does not appear to be of the same date. The west front, of the geometrical-tracery style, is very good, but does not here concern us. There is, moreover, a rich Flamboyant porch on the south, over-ornamented no doubt, as the style always is, but with one or two very good features, and among the rest a fine double canopy, the *intermediate* impost being a pendent.

Evreux.

On proceeding to Evreux we do not find much peculiarly adapted to throw light on our comparison of Early French and English Gothic. The nave is too early to answer this purpose, being Norman below, though the arch-mouldings of the round arches are more complex than those of the pointed arches of Louviers; and the choir is too late, as well as the triforium and clerestory of the nave; for they bring us to the times of geometrical tracery. But there is here a great deal of excellent Flamboyant work; the interior ends of the transept are quite models in their way, and the octagon lantern is set on the square crossing in a very elegant and

artist-like manner. The exterior of the north transept is perhaps the best we have yet seen; the flanking towers being very rich, without outshining the space flanked by them, and being terminated by very graceful clusters of canopies and pinnacles. This front appears to have succeeded in attaining that uniform richness and elegance at which the south front of Beauvais has aimed and failed.

If any one wished to trace the Flamboyant to its final disappearance in the revived Italian, Evreux offers many good materials for such a task. A most admirable series of wooden screens to the chapels surrounding the choir gives examples of almost all the ways in which one of these styles can modify the other; and shows, what we might not have so readily supposed, that in wood at least, many beautiful mixtures may be made of them. The two towers of the west front are also examples of a similar, or rather a later mixture, made by two different methods; and probably neither of them will be judged so favourably as the woodwork. They are to be considered as Gothic conceptions expressed in Classical phrases.

Lisieux.

On arriving at Lisieux, however, we find, at length, the means of making our comparison in an instructive and satisfactory way; for here we

have a church which throughout, and in the closest manner, resembles Early English work. Here then we may make some comparative observations. We still find the distinguishing character of French work, the square abacus; but along with this, we find the octagonal abacus occupying a large portion of the triforium, and the arcades under the windows in the choir have the round abacus, with foliage, capping-mouldings and arch-mouldings which at home would not be distinguished from English work. The bands of the piers also are of the Early English type, or nearly so, with the exception of a square plinth and a curl of foliage on its corners, not common in England, though very frequent in France. The string over the arcade also resembles the Early English form. The general arrangements are strikingly English: thus the triforium has pointed arches on shafts inclosing two pointed arches on shafts, the tympanum pierced with a quatrefoil; the clerestory has single-light windows; the vaulting has transverse and diagonal ribs with Early English mouldings. Still, however, there are considerable differences. The piers are *columns* with corinthianizing capitals, and their abacuses are squares with the corners slightly truncated. There are strings about the vaulting shafts, both of the clerestory and the aisles, but these are less marked than the English bands are wont to be: and there is a difference to my eye in the arch-mouldings,

though my companion will hardly acknowledge it, of this kind;—they more resemble a classical architrave than ours do; for, instead of a dripstone, they have a raised fillet or edge separated from the receding mouldings of the arch by a fascia-like space. It is true, this very easily passed into a dripstone, and is not any where very clearly distinguishable from one, but still the appearance is somewhat different. At the west-end interior this architrave is filled with foliage, and looks perhaps still more dripstone-like. This west end, inside, is a sort of interior porch with a vaulted compartment above, such as we have at Jumieges, and at several churches in Germany (Laach, Ratisbon, &c.); and the outer mouldings of the internal arch of this porch are much enriched; the abacus here has a vertical face sculptured with arabesques of foliage, like the north door of Rouen cathedral west-front. This mode of ornamenting surfaces appears also in the pedestals of the exterior doors of the north front of this church, and is an exhibition of a style of Early Gothic, or rather late Romanesque, which we should probably find more frequent and more developed in other parts of France or in Italy. This west exterior end is a very fine Early English front; and, like most of our fronts of that kind, (Salisbury, Peterborough, Wells,) contains some vestiges of the earlier style. Thus, while the north tower has beautiful lancet-

arch windows of great height, occupying the whole of its side, and divided by a single very tall shaft, the south tower has, on the same parallel with these windows, three stories of small windows, consisting of round-headed openings inclosing pairs of pointed openings (as at Shoreham), with interpenetrating mouldings. These two towers have in other respects every appearance of being contemporary, and the latter one is covered by a stone spire which, by its tile-cut surfaces and stiff crockets, appears to be of the date of the original Early English part of the building. The doors below this work (the north and south door, for the center one has had all the shafts removed, and the mouldings cut smooth away) are also good Early English, being *doubled* sets of arcades on four shafts in their sides. It is to be observed that there are in this building strings (not however very long) of an ornament, either identical with, or very closely approaching to, the Early English toothed ornament, so abundant with us in works of this style. This ornament occurs also in (a situation where ours is very familiar to us) the outer mouldings of the windows, in the south transept-front, in the interior face of the end of the north transept, and in the mouldings of the internal arch of the internal west porch. But we cannot pretend to say that in any of these cases it is cut so clear and free as to be comparable with good

English work; and it occurs very sparingly. On the exterior we have flying buttresses, which, like most French flying buttresses, appear to be too little sloped. This difference is very remarkable in many places, as for instance at Beauvais, where the buttresses have the appearance of a scaffolding, as has already been noticed.

On Different Kinds of Norman.

Jumieges. St George de Boucherville.

Besides the question of the determination of the characteristic differences of the successive styles of French architecture, and their relation to the corresponding styles in England, which we consider to be a peculiar object of our own, there is a question which hitherto seems to have occupied almost entirely the attention of our Anglo-Norman antiquaries, which it will not be advisable to lose sight of, though it is both much more obscure, and, as it seems to me, much less instructive and amusing. This is the problem of the determination of the relative antiquity of different kinds of Norman or Romanesque work, before any clear appearance of Gothic; and the discovery, if it be possible, of any well-authenticated and distinguishable style which may be considered as anterior to the Norman of the time of the Conquest. This has been considered so important a point, that the

greater part of the advice which previous travellers had given us, had gone upon the supposition that it must necessarily be the main purpose of our researches. Our English antiquaries speak very confidently of two successive kinds of Norman in our own country. One, very plain and massive, as exemplified in Waltham Abbey, the transept of Walkelyn at Winchester, Lanfranc's Tower at Canterbury, the Chapel in the Tower of London, &c.; the other, which occurs mostly after 1100, exhibiting all that variety of ornament with which the observers of Norman architecture among us are well acquainted. It never appeared to me very clear that the difference of these two sets of buildings was sufficient to constitute a clearly marked difference of style, implying a difference of dates; for there is not, in the most ornamented Norman, (when the ornaments are of the appropriate kind) any manifestation of a new principle which would by its developement conduct us to a new style of architecture, or would lead, by a modification of one member, to a modification of others, as is the case at other periods of change in our architecture. The principal exception to this remark is the appearance of the *roll*-moulding in arches; for this, if *repeated* and multiplied, and the rolls made consequently more slender, would bring a Norman arch to resemble an Early English one in circumstances which are at least as essential as the

pointed form, as may be seen for instance at Glastonbury.

In order to try to apply this distinction to Norman in its own country, we go in the first place to Jumieges and St George de Bocherville, both of which, upon apparently undeniable evidence, are stated to have been built before the Conquest. The Abbey Church of Jumieges is a magnificent example to start from, on account of its majestic size and solidity; and suits well enough the doctrine of early plainness. The pier-arches, plainly rebated, stand on great pilaster-masses, with half-columns attached in the sides and towards the aisle. Certain vaulting shafts in the front of these piers are obviously later insertions. The bases of the attached columns appear to have consisted of little more than a simple slope, and the capitals are rudely-sloped bells with an abacus. There is no ornament in the way of fillet or zigzag mouldings in the old part of the work, except that the top of the clerestory wall and of the western towers have a triple billeted-moulding, which seems to be old. These towers end in octagonal turrets, and have stories of narrow pannels and windows, which give them a resemblance to the lighter towers of later times. In the interior, this church put me much in mind of my old German acquaintances. The pier-masses and the plain pier-arches are such as are common in Germany, and we have

here moreover, as well as there, the triforium gallery with the double vaulting of the aisles, as at Gloucester; and the vaulted gallery at the west end, as at Laach. The rest of this splendid ruin belongs to later times, and serves to throw no light on the question now under consideration.

But if Jumieges falls in with the notions of some English antiquaries concerning the two kinds of Norman, St George, which is held to have equal antiquity on equal authority, disagrees with them. Here, it is true, we have very rude bases, some, looking like an attempt at a round between two hollows, and others, like a trial at the more common combination of a hollow between two rounds. And a person who was resolved to maintain to the last the cause of early simplicity, might hold that the bases belong to the historical epoch, and that the rest is more modern. I do not think this compromise would long avail him, but besides, it is without any countenance from the building itself; and I think if we are to reason from the edifice at all, we must allow it to be for the most part of one date, and that, as has been said, the first half of the 11th century. Now here we have a great abundance of those things which are excluded from the supposed first Norman style. Zigzags large and small, frets lozenged and embattled, cable-mouldings, studs, &c. The pier-arches have *rolls*, the capitals are sculptured,

not without some skill, the triforium is an arcade of small *beaded* arches. The turrets of the towers have so much of later character that they will of course be abandoned by all except the most extravagant maintainers of the precocity of Norman work in Normandy as compared with England; but omitting these, the chapter-house, which is said to have been built by an abbot who was buried there in 1087, is another great advance on any thing English which our antiquaries would attribute to such a date. It has very rich and well-executed sculptures of considerable delicacy, six-celled vaulting with double-rolled ribs, and the soffits of the three openings into it also enriched with ribs in a six-celled arrangement occupying only the thickness of the wall. The corbel-table from which the vaulting springs has pointed *notches*, and the windows in the wall-scutcheons of the vaulting have pointed heads: the vaulting also has pointed cells, being cross-vaulting, in two center compartments, and accommodated by diverging cells to three windows at each end. The capitals of the shafts are upright foliage with serrated edges.

I will not however insist longer upon this remarkable chapter-house; but I think the church itself goes very far to carry back the usual Norman ornaments to a date earlier than that which our intelligent countrymen seem willing to

allow. And when from this point we proceed to Caen, the wonder seems to be how there should be any doubt about the matter. For the two great Abbeys there, built by William the Conqueror and his Queen, have as incontestable a claim to their date of 1066 as any thing can well have; and here again we find nearly all the peculiarities which have been mentioned. Embattled frets, rolls, zigzags, occur in both. Much has been said of the great difference between the two; but when they are stripped of the additions of manifestly later date, this difference nearly vanishes, with the exception that the Abbaye aux Hommes (St Stephen's) has an arch above the pier-arch looking into the aisle, as is the case in the nave at Rouen. This has been called a triforium arch, but not with exact propriety, for though the aisles are now vaulted below as well as above these open arches, so as to make a gallery, the lower vaulting is manifestly an addition of the 13th or 14th century; and probably to the same epoch belongs the open triforium balustrade which runs along this member, and makes it appear a triforium. In other respects, as mouldings, arches, clerestory, &c. the two buildings much resemble each other, and confirm our persuasion that they perfectly represent the style of architecture of their asserted date. The choir of the Abbaye aux Hommes may by some have been associated with the nave, but it

is, to an eye a little practised, manifestly Early Gothic closely approaching our Early English.

Further Account of French Early Gothic.

Caen.

If however we take this choir of St Stephen's for the purpose of continuing our comparison of the French and English Early Gothic, we find very considerable differences between the two. For instance, the piers consist of engaged shafts between square pier-edges; the pier-arches have Early English mouldings, but one larger roll is cabled. In the apse, the piers are columns two deep. In the side-aisles, the wall-pillars are circular piers (engaged) surrounded with shafts, of which those only are detached which can shew the light of the window between pillar and shaft in consequence of their oblique position; an arrangement which shews, both that the architect of this part was alive to the beauty of detached shafts, and that some impediment, probably the nature of his material, prevented his attempting this rich mode of ornament when its effect was not likely to be prominent. The abacus of each of these clusters is a circular one, common to the whole cluster, and not resulting from the aggregation of a circular abacus to each shaft, as occurs in our way of forming such piers. The triforium

has round-headed arches including pointed ones, with trefoils in the tympanum, as at Salisbury; but the clerestory consists of a triple window different from any of ours, the middle light being pointed on shafts, but the lateral ones being only half-lights with quadrantal heads, so that the middle one being removed, they would make a round-headed one. This is the internal face of the wall of each compartment, while the corresponding external face is occupied by two small pointed windows. The pier-arches have sunk stars or cinq- or sixfoils in the spandrels. An arrangement which gives great lightness and variety to this apse, is that the buttress-walls separating the apsidal chapels are pierced with an arched opening on shafts, the soffit enriched with another rib on shafts.

The choir of St Stephen gives us an example of a very early stage of Early Gothic architecture in France. We may find other examples in the city or neighbourhood. The church-tower of the village of Ifs, about a league from Caen, ought perhaps not to be included in this class; for its ornaments are altogether Norman—zigzags, billets, &c. Yet it has pointed arches in the upper story, which has no appearance of being later than the rest; and if any doubt should arise in consequence of this circumstance, it might be removed by observing that the ground-story has

also, internally, pointed arches mixed with round ones. Moreover the arcades of pannels (some of them windows) which occupy each story have two or three shafts in the side of the opening, and as many rolls in the mouldings of its head, which must be held to be a mark of approximation to Gothic. This mode of covering the outside of towers with rows of tall narrow arches, on shafts, or separated by slips alone, with ornaments of various kinds, must have prevailed for a considerable period, for we find it at two other villages in this neighbourhood, Haute and Basse Allemagne, where the workmanship is rude and the joints are thick; and in the former of these two towers the pannels are formed by intersecting arches; the spaces which they include, necessarily pointed however rudely, are pierced. This tower is supported on four little piers, with thick transverse and diagonal rolls, so low that you may touch the abacus with your hand, and yet not clumsy.

Ardenne.

There is a ruin near Caen which has not been mentioned, so far as I know, by any of our travellers or antiquaries, but which is very beautiful and remarkable, and well adapted to illustrate the other extremity of the history of the Early

Gothic—its transition into the Decorated or Geometrical Gothic. This is the ancient Abbey of Ardenne, now a farm-yard.

I do not linger at its fine gate-tower, which contains a wide semicircular-headed gate and a pointed wicket, the former as well as the latter with good Early English mouldings, but with the addition of a line of square billets. I enter beneath the vault of this tower, of good Early English structure, with corresponding ribs; I look back at the apartment above, with its little trefoil-headed windows, originally double; I pass by its magnificent stables, and a buttressed barn, which puts to utter shame the largest of our edifices of this kind; I proceed past the roofless halls and Italian saloons, now undergoing demolition, of its mansion-house, and hasten to the beautiful church, now converted into a hay-house. This strikes us at once as strongly resembling the Early English of our best abbeys (Bolton or Newstead), and on examination we find the resemblance in details, closer than in any instance we have yet seen. Its piers consist of a central column surrounded by four shafts, not detached, perhaps for the reason already suggested at St Stephen. But they have the Early English double base, retaining its circular outline to the very floor; and the abacus of its proper Early English form over the upright foliage of their capitals. The

pier-arch has on each face its three rolls, (the middle one filleted), with intervening rectangular channels. The vaulting shafts spring from the floor, and have Early English capitals, and the triforium has open trefoil-headed pannels with beaded edges, and lines of small sunk trefoils in the spandrels and over the heads of these pannels; (which only occupy the foot of the window), this triforium being capped (as well as supported) by a strong string, which is stopped only by the vaulting shafts. The windows have a Decorated character, being divided into two lights by a mullion which splits at top and takes a trefoil between its branches.

But the west front is perhaps the most noticeable part, being in its details excellent Early English, while in its plan it appears to be a sort of first sketch of the Flamboyant Fronts, of which we have several times had to speak. The center compartment is divided from those which close the side aisles by engaged octagon towers, of which the front face assumes the form of a buttress with two plaited set-offs, and these towers were probably at first terminated by octagonal pyramids. The central compartment has not the three galleries of the later fronts, which we may call the portal-gallery, the transom-gallery, and the gable-gallery; but their effect is in part given by two considerable slopes corresponding to the two former mem-

bers, and a remarkable line of small acute pediments which runs along in front of the foot of the gable. This pedimented parapet is pierced in quatrefoils below, and in trefoils and single holes in the pediments, and these, within the roll which, forms their edge, have a line of points producing partly the effect of the toothed ornament. These pediments, as well as the gable itself, have had stiff crockets along them. The window is filled by a rose; but, unlike the common French windows, has this rose *in* a pointed arch; while in general, even in buildings clearly not later than Decorated, as the west front of St Peter at Caen, the rose forms the head of the window, and makes it semicircular. The tracery of the rose is also English flowing tracery, not French Flamboyant, and is very gracefully formed by throwing out six leaves from the center, bisecting these by other leaves, doubling these in the extremities, and trefoil-feathering each point thus produced. The part below the slope which comes from the bottom of this rose is solid, with panneling lines raised and feathered. But the portal itself which comes below the next slope is the richest part of this front. Its mouldings rest on shafts not only detached, but having behind them a line of shafts supporting pointed heads with little trefoil spaces between. The abacuses of these shafts are, however, square, the capitals of upright curled foliage,

most beautiful and delicate in its workmanship, but somewhat different from common English capitals in having small fruits sculptured on the lower part of the wall of foliage. The mouldings are eminently bold and good, but among them are two lines of foliage-moulding rather French than English, one, on the outside, of leaves cut hollow, folded obliquely over; the other a broad and large line of stiff-pointed curled tufts of foliage curling upwards and bending forwards. The door has been double, with a horizontal line in the pediment, and above this a trefoil-headed niche and sculpture. The doors of the side compartments and the windows above them are also excellent Early English. The doors have segmental heads below, and a six-foiled arch in the tympanum. Flanking these compartments, are buttresses with triangular heads and a single plaited set-off. The side doors are surmounted by windows with stout shafts and good mouldings, in one feathered light.

The mouldings and details of this work are so much like those of our country, that we can hardly help suspecting some English influence, while the general arrangement is such as might easily lead to the north front of Rouen Cathedral, though the interval of this developement may be conceived to have been considerable.

Norrey.

At a succeeding stage of our researches we discovered, by what we considered good fortune, though it cost us no small trouble in the sequel, a country church which is as genuine and beautiful a specimen of Early English as England itself can supply. This is the miniature cathedral (for though only a village-church it may be so termed) of Norrey near Caen. The choir of this church, with its transept, is in perfect preservation; the nave is very plain, and has no aisles and few windows, having been apparently a good deal injured. The choir, small as it is, has a splendid effect. All the mouldings are deep, free, and repeated after the Early English fashion, so as to give the greatest strength of line to all the parts. The piers, the pier-arches, the wall-arcades, the bands of ornament under the strings, the windows in the side-aisle, formed by piercing the center light of a triple window on shafts, the capitals, the beautiful sculpture, the bases, (two rounds with a hollow, or with a line of studs between the two tori,) the external slopes of the window-sides, the dripstones running horizontally as strings, the triangular heads of buttresses, their plaited set-offs, the polygonal turrets terminated by pyramidal caps and enriched by shafts at their angles; —every thing, in short, brings before us the purest

and simplest kinds of Early English architecture. Even perfect and free-cut toothed ornament is to be found, which hitherto we have never seen. It occurs in the exterior moulding of the south porch, of which the mouldings in other respects resemble those of Ardenne. The choir consists of three well proportioned stories, the pier-arch being supported by small clustered piers, which however are not free, and have certain fillet edges between them, not corresponding precisely to any thing in our Early English piers. In the apside, where the narrow arches require narrower piers, these consist of two columns set double in the direction of the wall. The triforium is four pointed beaded pannels on triple shafts (not detached from each other), and the clerestory is a single window without shafts, but with a roll. Below the horizontal strings are lines of trefoil holes; and the vaulting shafts spring from the capital in the apse, but from the floor in the rest of the choir. The aisles are eminently rich, having lines of arcades with bold free mouldings, and above these a line of sculpture of considerable breadth, very well executed, fanciful, and varied. The most curious part of the church are two polygonal apse chapels, which open into the aisles in the usual manner, with diverging vaulting cells from shafts in their angles. These chapels have the wall-string and its accompanying sculpture, and have moreover very good

piscinæ, the shaft having below it a well-cut string of foliage: they are roofed with curious pyramidal stone roofs, very tall, as if those had belonged to a much higher church. There is also a good porch under a triangular pediment, containing a double door with a straight head and niches in the tympanum.

The part of the church which first attracted our attention by its remarkable appearance at a distance, and induced us to visit Norrey, was the tower, a tall free story on clustered shafts, with the daylight seen through its lancet-windows. This attraction, it may be observed in passing, turned out a snare, and led to inconveniences which it required all our antiquarian zeal to consider as compensated by the remarkable character and great beauty of this building; for a serjeant-major of the national guard of Norrey considered our attentions to his church to be alarming, and declared us his prisoners; and as the mayor of that place was from home, being gone to market to sell his corn, we were, after a delay of an hour and a half, marched under a guard of three sabres and two fowling-pieces to the next village, Bretteville, where the mayor was reasonable enough to decide that antiquaries were not dangerous people, and dismissed us, to the no small indignation of our convoy.

Other Specimens resembling Early English.

After this point we found Early English in considerable abundance, with most of the peculiarities of our examples, and with that uniform goodness of work which distinguishes the style in our country: the details are considerably modified by the materials, but the characters are most clear and decided. Thus, proceeding from Bayeux, we find the little church of Subles, with its west end marked by buttresses, and faces with buttress-slopes, inclosing a plain door and window-pannel, and surmounted by a two-light belfry. This church, with its small windows, flat buttresses, and line of corbels along the wall-plate, is as simple an example as can be imagined of Early English (having no aisles, transept, or tower,) and is yet quite characteristic.

Passing St Lo, where the west front of the cathedral offers an Early English portal of doubtful authenticity (for the Flamboyant architects appear to have tampered with it to an unknown extent), we find St Gilles, a village in a slate country, and modified in some respects by this circumstance. Thus the pier-arches are here so thick that there are two shafts in the side of the pier, each of which supports its own chamfered rib. The tower stands over the compartment which divides nave and chancel. The windows are long lancet win-

dows standing high on a string, in the wall-scutcheons of the rude quadripartite vaulting. The east end has an Early English triple window, and all the shafts have capitals and bases of the same style. There is a portion of a Norman tower (one side only being built) which shews that the two styles were going on nearly at the same time, for the Norman part above rests on Early English work below.

Passing by Coutances, and confining ourselves to country churches, we come to St Sauveur le Lendelm, which has in the side of its piers an attached shaft with round abacus. Perier, which lies a little beyond, has the choir and the aisles of the nave Flamboyant, and in this instance the shafts in the sides of the piers are free, which is uncommon in France, though so general in England. At Isigny again we have an Early English building, with an English triple window of lancet-windows in the east end. In this case the compound piers have the pier-edges between the shafts cut into angular fillets by deep hollows; this occurs at Norrey, at St Loup in Bayeux, and elsewhere. This church at Isigny, like that at Norrey, has, east of the transept, a narrow aisle, nearly as high as the transept itself, vaulted from the clustered piers of the transept, and producing a very pleasing effect.

Returning towards Bayeux, we find the churches

of Formigny and Vaucelles. The choir of the former place is vaulted from triple shafts, but the eastern compartment has an arrangement of the vaulting which, with some modifications, appears to be common in this district. The eastern side of this compartment is vaulted with six-celled vaulting, which appears to have been originally accommodated to a triplet of windows in the east end, though this is now replaced by a window of geometrical tracery. The windows of this choir are of rather a curious form, having a little shoulder on each side the head. They are surrounded (except the bottom) by a roll-moulding.

But perhaps the most elegant and complete example of this style is the chapel of the Seminary at Bayeux; a plain room without aisles, but very beautifully arranged. The details resemble those of the Temple church in London, in the shafts, capitals, vaulting, &c. The windows are in pairs, separated by a shaft quite free from the wall-strip, and connected with it by a flowered impost-moulding. The west end has an Early English triplet inside, and outside a very good combination of faces with buttress-slopes. The arrangement of the east-end interior is remarkable in itself, and still more so when considered as one modification of a very curious and elegant mode of dealing with that part of the building, which occurs in several churches, and which is perhaps seen most remarkably de-

veloped when we come to the Decorated choir of Tour en Bessin. The peculiarity of this mode is, that it unites in a considerable degree the effect of the polygonal apse and of the east window, having diverging vaulting, but with eastern lights. In most of the Early English instances, as Formigny above spoken of, and at St Loup, these eastern lights are a common triplet; but in the chapel of the Seminary now described, there are two polygonal recesses separated by a clustered shaft, and again by another, these two clusters being joined by a lancet-head in the direction of the length. The polygons thus formed have each five of the sides of an octagon, and are cut off by a transverse rib from the end of the choir, beyond which rib they are vaulted in diverging cells, one to each side, the ribs of the vaulting running back till they are stopped by the transverse rib; and the three pannels in the faces of each polygon, which are to the east, to the north and south, and to the intermediate point, have probably been pierced as windows. The shafts of the windows, and among the rest, of the longitudinal opening which separates the two polygons, are of course much higher than those of the vaulting; and as the inner dividing cluster sends a longitudinal rib along the main vaulting as far as the boss, it has on its two sides two capitals of very different heights.

In the district west of Caen almost every church has traces, more or less abundant, of Early English work; and these are generally very well characterised; and in their mouldings, bases, capitals, strings, buttresses, pinnacles, &c. remarkably faithful to the type existing in our own country. In addition to specimens already spoken of, I may mention Vaucelles, near Bayeux, (Vaucelles is a name given to places in the suburbs of several cities, and is said to be a diminutive from *vaux*, valleys: I suppose Vauxhall is originally the same word), the choir and tower of Tilly, the choir of Fontenay, St Auban, the west-end doors of Cheux; and though the rest of the nave is perhaps too strongly tinged with Norman to be here adduced, yet the bases and capitals are quite clearly characterised.

Transition from the Norman to the Gothic Style. Cheux.

The transition which has hitherto occupied most generally the attention of antiquaries has been that from the Romanesque to the Gothic; or, as the question has been far too narrowly stated, from the round-arch to the pointed-arch style. This transition appears to assume very different forms in different countries. In England it may perhaps justly be termed a struggle; but here in

Normandy it takes place without any appearance of violence, and by the most insensible gradations. The round and the pointed arch, especially a very obscurely pointed arch, are found mixed in the most indiscriminate manner in a great number of churches of Lower Normandy; and when this occurs, the mouldings appear also to be passing from Norman to Gothic forms. Cheux is perhaps one of the most remarkable of these examples. The choir and the semicircular apse are apparently very early Norman, and serve well to contrast with the late or transition Norman of the choir. In this, the pier-arches, chancel-arches, and western doors, are pointed; the latter with well-developed and excellent Early English mouldings; the former with mouldings tending to Early English, but still preserving something of the architrave-like character of Norman work. At the same time the clerestory has round-headed windows, in the form of recesses on shafts, within, which correspond, outside, to a complete arcade of round-headed arches. The windows themselves, formed by piercing the middle pannel of each triplet of this arcade, are little more than slits, but are clearly pointed, as are also those of the aisles, which are equally round-headed within, but without shafts. St Manvieux, a little nearer Caen, offers a similar mixture, as do Fontenay, the nave of Formigny, and a great number of other churches. When we have the

pointed arch with clearly Norman architraves or mouldings, as zigzags, beak-heads, embattled frets, &c. the transition is less gently conducted. M. de Caumont has collected above fifty such instances. We saw a few, as the north door at Carentan; and indeed they are by no means uncommon, though they always strike the eye as something incongruous.

The Transition as seen in Early French Towers.

The transition from the unmixed Romanesque, which English and French writers generally call Norman, to that style of Early Gothic which we know so well under the name of Early English, may be traced best perhaps in the towers of churches in Normandy; for, taking it as it occurs in these, it is easy to make out a series of steps such that it is scarcely possible to say that any one of the successive changes can be called an essential alteration, and yet the two extremes of the series are perfectly clear and well characterised examples of the two styles. Thus we may begin with towers such as those of St Stephen at Caen, or St George de Bocherville, or even Jumieges. They consist of several stories, each marked by a number of round-headed openings or pannels, the latter being merely sunk surfaces, the former mere apertures having perhaps an impost-tablet. These features then ac-

quire roll-mouldings, and the windows have a shaft in each side. This would hardly by any one be considered as a deviation from the simplest Norman. The windows being in a thick wall, not one only, but two shafts and two roll-mouldings, are introduced, with square edges between each. From this form we pass to three shafts and three rolls: the windows thus enriched occupy the whole face of the wall, and the outermost shafts of contiguous windows form a close couple. The pannels are treated in the same way. The whole tower thus becomes an aggregate of vertical lines, with the small exception of the heads of the windows, which appear, from the nature of their mouldings, a continuation of the shafts. When the change is thus far advanced, the substitution of a pointed arch to the windows instead of a round one is scarcely observed as an additional alteration. The main features of these towers are, then, the fine bundles of slender shafts which separate the openings and constitute the substance of the tower. In this form the vertical extension of these clusters, and the consequent comparative elongation of the openings, goes on without giving any character of a new style, but only of additional lightness and grace. In this manner we reach a kind of tower which has all the appearance of the most pure and beautiful Early English.

This series of changes is completely developed

in Lower Normandy. Jumieges has only single shafts in the sides of the openings, and the pannels have none. Haute Allemagne, of which the work is rude, has intersecting arches, with zigzag mouldings. These and other enrichments of the mouldings are unessential features, except so far as they connect us with our starting point in the Norman style; they gradually disappear as we proceed. At Basse Allemagne we have the pannels on shafts. At St Michael de Vaucelles, and at Ifs also, near Caen, we have a much finer church with three shafts in the sides of the openings: in this case the openings of the upper story, formed in the same way, have pointed heads. Here also we have those polygonal turrets on slender shafts at the angles of the square towers which approach so nearly to the lightest imaginable Early English pinnacles; and we have canopied windows also, on slender shafts, projecting from the base of the spire in each face, with triangular pediments; the whole tending to produce a cluster of subordinate spires, out of which the principal one rises with the grace which we admire in our later spires, as St Mary's at Oxford. Coutances offers, in its western towers, fine examples of this grouping; while the members still remain such as they have been described, and those of St Stephen are very little inferior.

But, before we reach this point, we may exemplify some of the intermediate alterations of the

tower. St Gilles, near St Lo, has one side of a tower of which the belfry-story is occupied by three windows entirely Norman, but still covering the whole face. Formigny has a tower in which there are two such stories with three shafts in each side, the lower of three, the upper of two windows, and the upper windows again bisected by a shaft. Here the vertical clusters of lines are somewhat interrupted by the want of correspondence between the two stories, though the windows are pointed; and the covering is a pack-saddle roof, a summit of very frequent occurrence in this district. At Tour en Bessin, a little nearer Bayeux, the tower assumes a much more Gothic appearance, having two tall windows in each face, in the sides of which we may reckon *four* shafts besides the one within the opening, and these recesses are pointed, and are moreover flanked by two narrow pointed pannels; yet here the outermost moulding of the window carries the fillet-moulding. This tower has a spire with corner turrets, and canopied windows, such as have been described, except that the former have beaded slips in their sides instead of shafts, and the latter have their sides formed, not of shafts, but of walls with triple shafts, like the window below. This arrangement gives a decidedly Gothic character to this spire; and probably any one would rank it, as M. de Caumont has done, in the lancet style. Finally,

by the elongation of these windows and pannels, we obtain the beautiful tower of Norrey, which, at a distance, appears like an open temple in the air, and invites the traveller to examine the admirable Early English choir, perfect in every way, from which it rises.

It may be observed, that the habit of flanking the windows by pannels of smaller width obtains in the Norman towers also, (see the plate of Vienne in the Mem. Antiq. Norm.) In the course of the change above described, the Norman corbel-table becomes a string supported by corbels, like modillions. These towers, even when they become as clearly Early English as Norrey, have no ostensible buttresses, but they spread downwards to the north and south; and the projection thus given is carried off upwards in shallow buttresses against the outward face, and is cut out internally in the deep arches of the north and south windows of the lower compartment; as at Vaucelles near Caen, Tour, and Formigny.

We may add to the above examples the tower of Tilly, where the edges of the tower are chamfered, and shafts placed near the chamfer; where also the four shafts in each window-side have between them, not square edges, but prismatic fillets with channels, as in the piers at St Loup (Bayeux), at Norrey, &c. and where the pointed belfry-windows have dripstones full of nail-heads, much

resembling in effect the Early English toothed ornament.

In this manner we pass on insensibly to such beautiful and complete Gothic towers as those of St John and St Peter at Caen, which differ from those just mentioned only in the details, the shafts here being of the Decorated style, the belfry-windows (as least in the latter church) crocketed and finialed, the pannels in the roof-story having triangular canopies, and the strings and tablets being enriched with foliage. Even the corner-turrets and the canopied windows at the foot of the spire-faces in St Peter are merely translations of those of St Stephen and similar ones, into Decorated language.

On the Formation of the Gothic Style.

The question of the origin of the Gothic style has become both frivolous and insoluble, by being identified with the question of "the origin of the pointed arch." To discover the first building in which such arches were employed, or the name of the architect who was first led, by whatever accidental suggestion or necessity of construction, to adopt such a form, is a task which it might have been supposed no one, at the distance of six or seven hundred years, would expect to succeed in; and even if we could obtain a reasonable probability on this point, such knowledge would not in

itself be of more value than that of the first use of the trefoil-headed opening, or a dozen other similar problems. And while the origin of the mere pointed arch is thus a trifling enquiry, the origin of the Gothic style, a style most beautiful and complete in itself, and the antithesis in many respects of that which preceded it, is a question of high interest in the history of art and the philosophy of taste, as well as a remarkable point for antiquarian research. In speaking therefore of the first growth of the Gothic style, it will be advisable to give our chief attention to other points rather than to the mere form of the arch; we shall find the latter fall into its place as we proceed. On this subject the following suggestion is, I think, worth some attention.

A portion of the side of the interior of a Norman church may be considered as consisting of an arch supported on piers, and a window pierced in the wall which this arch sustains. The characteristic circumstances are, that the pier is a column, or a mass of wall not broken into small shafts and vertical parts; that the arch is cut square in the wall, with, perhaps, one sunk face, but with no oblique group of mouldings, nor any correspondence whatever between the parts of the archivolt and of the pier, the former being in fact an architrave: and the window above is a perforation in the wall, with no necessary relation to the members below. In the

Gothic style these circumstances are all altered. The pier is, in the most complete examples, a collection of vertical shafts surrounding a pillar, of which the edges are no longer square. The archivolt consists of members corresponding more or less to the members of the pier, and consequently is composed of a collection of rounds and hollows, and loses all trace of its original rectangular section. The piers send up vaulting shafts, which give an independent unity to the compartment which they bound; and the clerestory window and its accompaniment have a necessary relation to the symmetry of this compartment; the triforium, of course, conforms to the same rule. At the same time the workmanship improves much, both in skill and taste, and carries the predominating character into the details. In this way the Early Gothic acquires bases, capitals, arch-mouldings and many other members, which are as constant in their form as those of the Doric or Ionic orders. Thus, the base consists of a hollow between two rounds with fillets, with a very marked horizontal spread of the lower part; the capital is no longer, as in the Norman, a carved and sculptured mass, with a thick square abacus above, but is a graceful bell with foliage tending upwards, and curling in an extremely free and elegant manner; and, universally in England, often in France, the abacus becomes round with a characteristic profile, and thus loses that appear-

ance of a termination to the vertical members which it had before exhibited. The mouldings of the arch consist of round and deep hollows, producing very strong lines of shadow, and have a continuous and carefully marked section. These bases, capitals, mouldings, sections of piers, of window sides, of strings, and other similar features, are quite as constant in their occurence as the pointed arch, and much more characteristic; and no view of the formation of the Gothic style at all touches the really important part of the subject, which does not take account of these circumstances.

This being understood, it will easily be seen that the transition from Norman, or any other form of Romanesque, to Gothic architecture may be traced, as to its details, in various ways. Since the two styles differ in so many points, whenever we have some Romanesque and some Gothic features, we have a mixture, and many of these mixtures are such as may be considered natural steps in the transition; while other mixtures may be considered as really confusion and barbarism. Thus, in the arch, for example, one mode in which the change may take place is by gradually altering both the form and the mouldings. Beginning from a semi-circular arch with a depressed (rebated) rim, we may form one or two of the edges into rolls, we may then obscurely point the arch, and this is a combination which we very frequently find in Normandy;

such arches being mixed, almost indiscriminately, with round ones. As the moulding becomes more multiplied and less rectangular, the arch may become more pointed; it may reach the lancet form; and we may then begin to channel or fashion the remaining square edges so that they lose their squareness. This is done in the same district of which we have spoken, for instance at Norrey and St Loup. Nothing now remains but to give additional grace and finish to the arch-mouldings, and we may have the most beautiful examples of Early Gothic arches.

Such may be conceived to be the *natural progression* of the arch. But another kind of combination occurs, which does not grow out of this progressive developement, and may be considered as a forced mixture. Such combinations involve a tendency of a different nature from that of which we have been speaking. When a style of architecture is complete, either in itself, or in its reference to the wants and feelings of the people who practise it, an obvious mode of increasing its richness and splendor is to *sculpture the surfaces*, by which means the essential forms remain unchanged, the creative ideas which might tend to alter these being dormant. This style of decoration gave us the beautiful friezes of Grecian art: at a later period, it was employed to a greater extent in other orders, and covered not only the friezes, but many members of the cornice

with rich foliage. The Normans applied it especially to the architraves of arches. We find the same tendency to seek splendor in sculpturing and even in inlaying surfaces, in Asia—as in both the styles of Indian architecture, and in Persia; probably it is universal.

The various kinds of decoration with which the Normans enriched their architraves are well known, and have been in some measure classified, or at least named. Probably this distinction has fallen to their lot precisely because it is easier to collect the details of a stationary system, than to trace the varied mixtures and vague gradations of a transition. The latter task is however more important, and at any rate it is our task at present. This sculpturing of surfaces in Norman work is practised to a most prodigal extent; but perhaps the most gorgeous specimens of it are to be found in other parts of France and in Italy, where its career was not so soon or so decisively interrupted by the intervention of the Gothic.

It will appear from this view of the matter, that this Norman decoration of the archivolt is no part of the progression towards Gothic, but rather goes on the supposition that such a progression is not in operation. When therefore we find the pointed arch which belongs to the later style combined with the zigzags, embattled frets, beak-heads, and other ornamental mouldings, which belong to the richest,

and it may be, the latest Norman, this is no longer a *transition* but a *mixt* style. Such examples may be collected as curiosities, and they do in fact shew that, along with the progression, there was also a struggle;—that while some builders perceived the nature and relation of the members of their edifices, and combined such details, influenced by a feeling of their harmony; others unintelligently took forms which they had seen used, and ornaments which they could readily execute, and mixed them in a manner which never could have produced any thing complete or consistent. There are many such specimens in England, and probably a still greater number in Germany. We may call them pointed Norman, or pointed Romanesque; and as has already been said, it may hereafter deserve to be examined whether this mixture in Italy and parts of France does not appear in such force as to require to be separately considered.

In the other mode of combination of the two styles, the progressive transition, we may notice sometimes instances in which there is a disproportion between the different parts of the architecture, the forms and the details; as, for instance, where we have perfect Gothic mouldings, with arches perfectly semicircular. Here, one part of the change appears to have got the start of the other; but in fact such examples are often adaptations for convenience, as in the Abbey gate of Ardenne above

mentioned. Sometimes they may be mere caprice, and then they are in some measure open to the charge of barbarism; perhaps Glastonbury is not quite secure from such a judgment.

But while this way of enriching Romanesque work, by retaining the forms and sculpturing the surfaces, did not naturally lead to a new style, there was another mode of enrichment which did tend to such a change, namely, the pratice of multiplying and repeating the members of the architecture, as windows, pannels, doors, shafts, and pillars. Such elements being more and more multiplied, while the original classical principle of the predominance of horizontal lines was quite lost sight of, the forms of buildings became altogether vague and incoherent, till the predominance of vertical lines was brought into effect.

A leading circumstance then, in the formation of the Gothic style, is the introduction of vertical arrangements and lines of reference, in the place of the horizontal members, which predominate in Grecian and Roman architecture. This appears to be the most general and most exact view which we can take of the change; and this view will be found to include several subordinate principles which have been noticed by various writers.

When the classical forms of architecture began to be frequently used on an extensive and splendid scale for the purposes of Christian wor-

ship, the elements of the overthrow of that style of architecture were immediately brought into action. The architects undertook to build high buildings, as towers, and for this purpose placed one story over another, accumulating the number of openings and members to a great amount. How naturally and insensibly such towers passed into the Gothic style we have already seen.

But another circumstance which perhaps still more advanced this change was, that in the Christian temples the worshippers were *within* the temples, and the edifice was hence calculated for an interior spectator. It is remarkable how necessarily this will be seen, on a little consideration, to change the whole character of the building. A temple, or a series of temples, intended to be seen from *without*, and formed on the Grecian model, would have a line of entablature which would have a natural and congruous reference to the horizontal line on which they stand; and it would not happen, in any common points of view, that this reference would be obscure or interrupted. The temple would be seen as a whole, and the entablature of one or of two sides, supported by well formed pillars, would be simple or beautiful. But for buildings to be seen from within, the case is different. To extend them by an extension of horizontal architraves resting on columns, would produce a space without grace, dignity, convenience,

or the possibility of being lighted. When such buildings were made spacious and splendid, the height was increased at least in proportion to the other dimensions, probably more; and windows, one range over another, were inserted in order to light this space. The space was covered with a series of vaults, one to each window or group of windows; hence, naturally, the necessities of such vaulting led to pointed arches, vertical lines, and other Gothic features, as I endeavoured to explain, after seeing the results of such a mode of building exhibited in the Cathedrals and Churches which border the Rhine. But I now observe further, that even without taking into account the consequences of vaulting, the *interior view* necessarily introduced a style of building which had reference to vertical lines. The interior view of a building occupies the whole of our field of view, and not a small fraction of it only, like a temple seen at a little distance. Hence the horizontal lines are necessarily displaced and overmatched by the perspective; the sides, however long the building is, are reduced to narrow strips on the retina of a person looking along the edifice; and the two vertical lines which bound the end and divide it from the sides, are really the master lines of the whole scene, controlling and regulating all the rest. All the horizontal lines, however strong or long, stop or bend when they come to these vertical boundaries;

and the spaces on one side or on the other of them (a side and an end) are occupied by forms and combinations altogether different. The building will therefore then only be reduced to harmony and consistency when the principle lines and members of the architecture submit to be regulated by these irresistible lines. When the series of vertical vaulting-shafts has established this subordination throughout the building, all the rest of the members readily receive a Gothic character from their place and bearing. This predominance of the vertical angle-lines is associated with the effect of the vaulting in most German, and many French, instances; for the building is terminated by an apse, and the vertical lines which make the angles of the apse, are led up to a vault, from which the vaulting-cells diverge.

The manner in which the establishment of the authority of vertical instead of horizontal lines induces all the features of the Gothic, need not here be insisted on: but it may be observed, that we are led by these considerations to the conviction, that the seeds of destruction were sown in the system of Classical architecture as soon as the arch was introduced. For, what was the arch to do, and where was it to be put? It was placed for a long while between two columns, having its own impost, and leaving the columns to do their own work in supporting the entablature. But why were

the arch and entablature to be both there? The entablature was to consist of large blocks, strong enough to support themselves as lintels: the arch was to supersede the necessity of such blocks. Here therefore was no consistency. Again, the arch was in fact the principal line of the opening, notwithstanding that the Romans did not allow it to be attended by any thing more than the architrave: and the columns were the principal supports.—Why then should not the columns support the arch?—This was accordingly soon done, as in Diocletian's palace at Spalatro. But when this occurs, there is an end to the supremacy of the horizontal entablature lines. Why should not the arch take all the cornice mouldings, and the entablature disappear altogether? There is no stability in the Roman system; nothing satisfactory, nothing final.

This architecture therefore went on, as on these principles it should have done, breaking up more and more. Arches, columns supporting arches, one order over another, one story over another, tall towers with many windows, coupled pillars, grouped openings, innumerable attempts at variety, repetitions, multiplications and modifications, were introduced. All the forms and rules of classical architecture were cast loose, and there was no longer any fixed model or limit to the caprice or adaptations of the builder.

I have said that it appears to me hopeless and

useless to attempt to decide by what accident, by what particular architect, and at what exact period the first pointed arches were constructed. I would not however be understood as if I thought that the formation of the beautiful and perfect style of architecture to which this arch principally belongs had gone on by an imperceptible and inevitable gradation, directed by persons unconscious of what they were doing. There must have been concerned in the production of this style of building, men of great taste and feeling for the beauty of art, of great skill and knowledge in construction, of great genius and power of seizing the thoughts which large masses of mankind follow and assent to. And it is perhaps made more clear by what has now been said, in what the genius and talent of such men shewed itself. The influence of such persons was wanted, in order to give a new principle of unity to that which had lost the old one. The ornaments, openings, windows, pillars, which had formerly been governed by the most imperative rules of horizontal arrangement, had been disbanded, or at least their discipline had become good for nothing. The Gothic architect restored the reign of order, and rallied these vague elements in a vertical line. A new thought, a new idea, was infused into the conception of such members, which at once gave them connexion and fixity. The previous change from

classical architecture had been a breaking up of the connexion of parts, multiplicity without fertility, violation of rules without gaining of objects, degradation, barbarism. The change now became the formation of connexion; the establishment of arrangements which were fertile in beautiful and convenient combinations; reformation; selection of the good, rejection of the mere customary. We have therefore to suppose that some among the architects of the 11th and 12th century, or they who first seized and used and diffused these new ideas, were most deserving of all our interest, all our honour.

The account which has been given of the original formation of the Gothic style is consistent with all those hypotheses which ascribe the invention of the style to one or other of the necessities of the construction; for instance, to the necessity of having arches of the same height and of different widths for the purpose of vaulting; and to the necessity of having narrower pier-arches at the apse than in the sides; both which objects are effectually provided for by the application of the pointed arch, and each of which has by some been supposed to have caused its introduction. It may be observed in addition to what has been said of the peculiar effect of an *end*, in the interior view of a building, that this effect is somewhat modified by the practice which obtained from the earliest periods in Christian buildings, (as in basi-

licas, their prototypes,) of making the extremity of the plan semicircular. The division of the sides and the end became by this means less harsh and sudden, but the effect of the vertical dividing line, the supreme control which it exerts over all lines which meet it, the difference of the apparent arrangement of the parts on one side of it and on the other, remain undiminished; while the connexion of the vertical lines which lead up to the roof, with the sloping curves which compose it, is by this means more completely forced upon the eye.

We may suppose therefore, as we have in fact abundant evidence in our round-arch buildings, that the necessity of some contrivance for the purposes just mentioned was felt before the adoption of the pointed arch. Round arches *stilted*, as it has been termed, that is, raised by the addition of a vertical portion in each side, were very frequently used; and by imperfect working and other accidents these became horse-shoe arches, and other forms, which can prove nothing but the insufficiency of the semicircular arch alone for the general purposes of construction. The apsidal end at an earlier period appears to have been constructed without aisles or pier arches, being formed of two or three stories of smaller windows or pannels; but where the aisle was carried round it, stilted arches were used here also, as at St Mary Capitoline in Cologne. While these imperfect and

detached contrivances prevailed, the pointed arch was probably sometimes used, among other forms, previous to its general use. But at last, as I have already said, some master-spirit seized the principle which reduced all these broken and discordant elements to harmony. It was perceived that—by treating the pier and the arch as a collection of members of the same kind; by substituting fine bundles of moulding for the edges of a perforation in a wall; by carrying leading lines from the floor to the vault, and by arranging all the smaller portions with reference to the symmetry of the compartments thus produced; by rejecting or subordinating all horizontal entablatures, square abacuses, flat tops of arches, rectangular surfaces;—there was produced a consistent and satisfactory whole. It was seen that the system thus formed presented a harmony in its lines and divisions to the internal spectator; was capable of being formed into the boldest and loftiest towers; was susceptible of almost inexhaustible modification, without any violence to its constituent members, and of almost unbounded decoration, without obscuring its characteristic features; and thus possessed a principle of vitality and unity which made it a style of architecture, as its utility and convenience made it a mode of building. For mere convenience may lead to and suggest forms and artifices, but can never elevate them into an object of taste. A

cotton-mill or an engine-house are constructed with a perfect adaptation to their purposes, and with many very skilful contrivances, but yet they have never given rise to a style of architecture.

The perception of the possibility of making a harmonious and satisfactory style which should provide for all the conditions of internal perspective, cross-vaulting, apsidal aisles, lofty towers, varied plans, profuse ornament, may well be considered as a discovery; yet it was probably not the work of one mind, nor distinctly conceived as a novelty by those who had the greatest share in its formation; they were perhaps hardly aware that they were creating a new form of works of architecture, any more than the Homeric bards, or the founders of Grecian tragedy or of English tragedy, were aware that they were creating a new form of poetical composition.

Of the Intersection Theory.

But though the account which I have given of the formation of the Gothic style is consistent with several of the hypotheses of the origin of the pointed arch which have been advanced, there is one hypothesis on that subject, perhaps the most attractive at first sight, (for it appears to have attracted the greatest number of casual speculators,) to which the above views lend no countenance, and

which I believe will not be found to be supported by any critical examination of the subject. I speak of the opinion which supposes the pointed arch to have originated in the intersecting arcades so common in Norman and other Romanesque work.—We have lines of shafts or pilasters, and semicircular arches connecting each of these with the alternate ones. In this manner, between each two contiguous divisions is formed a pointed arch; and by taking these pointed arches and using them for all purposes, arose the Gothic style.—Dr Milner even pretended to give the date, building, and person, to which this accidental discovery is to be ascribed. The church of St Cross near Winchester, built in 1126 by Henry of Blois, has intersecting arches in the triforium of the choir, and the pointed-arched intervals of these arcades are perforated as windows, so that the semicircular arches within give pointed openings without. These are the earliest English pointed arches; from these all others are derived.

Observe what this theory takes for granted:—that men's minds were so ready for the formation of a new style, that when this pointed arch was once placed before them, they adopted and repeated it, to the rejection of all the other forms which were produced by accidental combinations, to the rejection of the round arch, which they had been accustomed to for centuries upon centuries:—that

they employed this form in situations where intersecting arches never had occurred and never would have occurred; that they modified all the other parts of buildings at the same time that they introduced this feature; and this, though these modifications for the most part do not exhibit the form of the pointed arch, but others quite different, as for instance, mouldings, pinnacles, tracery. Surely these are changes which require some notice in a theory which pretends to account for any thing. There are here many facts quite as difficult to explain as the discovery of a pointed arch would be, even supposing the discoverer had *not* seen an intersecting arcade. The intersection *offered* the pointed arch; but what induced men to *take* it? How came their minds in this state? so ready to accept a novelty; and not only to follow it out to its consequences, but to invent a system in which it should be one feature amongst many; to associate it in extensive combinations; to invest it with a signification which alone, or otherwise treated, it would by no means possess?

To shew by what accident or necessity such a form might occur, is no more a reasonable explanation of the pointed style, than it is a reasonable explanation of the origin of the alphabet to shew how the form of an A might accidentally or necessarily be produced.

This is the reasoning which the principles of the

subject suggest. With regard to the circumstances with which Dr Milner has invested the hypothesis, they offer so many flat contradictions that it is quite wonderful how any system could have for a moment blinded a person to them. For these original pointed arches at St Cross are small arches, occurring, as has been said, in the triforium. Of course, the reader would inevitably imagine that the parts built before these first of pointed arches must all be in round arches. He will therefore be in no small degree surprized when he visits this church, and finds that the large pier-arches of this very choir, which *must* have been built before this triforium, as they immediately support it, are as good pointed arches as any building of the 13th century can shew; that moreover there are in the lower part of the building several pointed arches with Norman mouldings, and among the rest, all the vaulting of the side-aisles of this very choir; while on the other hand in the upper part, necessarily built after these intersecting semicircles, and open to all the improvements their construction could suggest, the clerestory windows, openings of the same kind and size as those in the triforium, have *not* taken the hint, but are round-headed windows with bands of characteristic ornament outside.

I do not think that any one church can be conceived more adverse to the intersection theory than this is. The theory has, as I have said, something

taking about it: if any one wishes to see how entirely it is contradicted by facts, St Cross is as strong an example as stone and mortar can make.

Dr Milner, who thus undertook to penetrate to the origin of Gothic architecture, built a chapel after his own designs at Winchester, and the visitor may from that specimen judge of the degree of critical accuracy which he possessed in respect to such matters. It is no reproach to him that he was no better a Gothic architect than many professional architects of that day; but it must be allowed that it would have been difficult to shew less accuracy of observation in his imitation than he has done. The whole and the details are as paltry, inconsistent, and unlike our old churches, as any of the so-called Gothic works of the last century.

It was not therefore to be expected that Dr Milner should endeavour to prove or try his point by the examination of mouldings and other details. If he had done so, he would still have found the evidence altogether against his theory. The fact manifestly is, that these triforium openings have been cut at some succeeding period, the 15th century as likely as any other, when, in consequence of stopping up the east windows, or from some other cause, additional light was desired. They are really mere perforations, with no external moulding of any kind; and, while the round-headed windows both above and below them are richly ornamented, these cele-

brated pointed holes have no more ornament than the lights of a barn, and the stones which form their points lie in horizontal courses, the joints having no reference to the head-lines of these holes.

There are various instances which prove that when it was desired to obtain light through these intersecting arcades, the contrivance which immediately suggested itself was *not* that of piercing the pointed space. In the remarkable Norman church of Graville on the opposite coast of France, we have an evidence of this. There is a group of intersecting arches at the end of the north transept; and in the middle one of the pointed compartments thus produced, is a *round-headed* window, leaving, near the point of intersection, a part of the pointed space not removed. But without going so far, if Dr Milner, turning his eyes for a moment from St Cross, had lifted them to the gable end of the transept of Winchester cathedral, which looks towards St Cross, he would have seen the same combination;—a group of intersecting arches, with a *round-headed* window, originally, as appears by the arch-stones, pierced in one of the compartments. It appears, therefore, that there was a time when the mere sight of a pointed compartment, and the formation of a window in it, did not lead men a single step to the pointed-arch style.

I by no means pretend to say that the hypothesis of intersecting arches is clearly *à priori* impossible. It might have been true, for any thing

which we can prove; and it is not difficult to see what the facts must have been to establish our conviction of its truth. Let it be supposed that intersecting round arches and arcades occur frequently, and upon a large scale as well as a small one; that the pointed-arch spaces so produced are often pierced;—that such pointed spaces, preserving the mouldings of the round arches which gave rise to them, are used in the situations in which round-headed openings were used before;—that the mouldings in some cases begin to have a reference to the pointed arch, instead of the original circle;—that this reference appears in different degrees of prominence, ending in that where the reference to the original circle vanishes: let it be supposed, moreover, that while this change of the moulded line takes place, there is a corresponding series of gradations in the mouldings themselves, beginning with pure Norman in the intersecting circles, and tending towards Gothic in the pointed spaces, as the Norman lines and ornaments fade away:—let such a collection of instances be produced, and we will allow the intersection theory to be indeed highly plausible.

But how much of this is the fact? Scarcely a single point. There are hardly any *large* intersecting arcades: there are none of these pierced with pointed arches; they never occur at all in those situations where the pointed arch first oc-

curs, in the pier-arches; the cases of intersecting arcades are exactly the situations in which the round-headed arch remains, when the rest of the building has the arches pointed, as in small windows and pannels. The cases in which pointed arches first occur have never any trace of the circles which must intersect to produce them. In the few cases in which small pointed openings are produced by intersecting circles, there is no reference of the mouldings to the pointed part. There is no where any mixed reference of the mouldings partly to the pointed space and partly to the circle; and there is no trace of an approach to Gothic mouldings in any case where the intersecting arches occur. Every fact which can be imagined to point out a gradation of adaptations, a transition in forms, an alteration in style, is altogether wanting. Wherever we find intersecting arches, they have the most rigid and unmingled Norman character; and the few cases in which the pointed spaces are pierced are either the performances of succeeding times, as at St Cross, or the caprices of Norman work, which sometimes clothed in its peculiar suit of ornaments a pointed arch, however produced, and seems to have so dealt with pointed arches arising from intersection, in one or two examples. I think there is one at Canterbury; but if there be, it exhibits no more tendency to Gothic than the door of St George of Bocherville.

I have probably said as much about the origin of the Gothic style, and about the intersection theory in particular, as is at all needful at present, and I will now quit the subject.

Comparison of French and English Decorated.

Having found our Early English style so completely exhibited in Normandy, we were very desirous of discovering also some specimens precisely exhibiting that style which Mr Rickman has called the Decorated. This is, as the reader knows, characterized with us by its window-tracery, geometrical in the early instances, flowing in the later; but also, and perhaps better, by its triangular canopies, crocketed and finialed, its niched buttresses with triangular heads, its peculiar mouldings, no longer a collection of equal rounds with hollows like the Early English, but an assemblage of various members, some broad and some narrow, beautifully grouped and proportioned. Among these mouldings, one is often found consisting of a roll with an edge which separates it into two parts, the roll on one side the edge being part of a thinner cylinder, and withdrawn a little within the other. A capital of crumpled leaves, a peculiar base and pedestal also, belong to this style. We wished much to compare the French specimens of such a style (that of the first half of the

14th century) with our English ones, as we had compared the styles which preceded and those which succeeded this in the two countries. The agreement was perhaps too much to expect, for with us this is much the most scarce of the styles of our architecture, and was practised, it would seem, for the shortest time. The Early English prevailed probably before 1200 and after 1300; the Perpendicular reigned from soon after 1360 to the revival of Italian art, and was very well executed in 1500. The Decorated, on the other hand, in its purity belongs to the interval of a half-century thus left; and it is perhaps hardly likely that this period should be sufficient for developing it in the two countries, with its national distinctions. We had however found some clear instances of it; and if we could have added one good building in this style, we should have made our comparison with considerable confidence. We were led to expect that Caudebec was such a specimen; but this church turned out to be a highly florid Flamboyant building, exhibiting the features of that style with very considerable exaggeration; and with a west front and a spire far more elaborate than any of the buildings hitherto mentioned. We were therefore left to ground our comparison on such buildings as we had previously seen.

St Ouen, at Rouen, which belongs to our Decorated date (1320), also exhibits many of the

features of our style at that period; not only in its tracery, which, as we have already said, appears in France along with the preceding style, but also in many more decisive features; thus the bases with their polygonal pedestals, the capitals of crumpled leaves, run through all the original parts of this building. The mouldings also are, in many parts, good Decorated mouldings; but this specimen wants many of the good features of our Decorated work, as the enrichments of the buttresses, and the canopies of the windows; and is on the whole too plain, except in some particular portions, to be a good example. The choir of the church at Jumieges is a more characteristic specimen, and the section of its piers is as good as possible; but the bases of the piers are almost all that remain of this part of the building. The abbey of Ardenne, near Caen, approaches near to this style; its mouldings are very good, but still it does not exemplify all the characters. The old church of St Germain at Pont-audemer has, in its south aisle, work of this kind, but the windows are nearly all that remain. The best example, of a small church, is that of Tour en Bessin, near Bayeux, of which the choir, when complete, must have been a most admirable exhibition of this kind of architecture; and here we have a wall-arcade of triangular canopies crocketed and finialed, excellent windows, and a singularly skilful and elegant

arrangement of vaulting. With these examples we can have no doubt that this style did prevail in France nearly in the same form, and about the same time, as in England; but we still want some large and rich building to make us acquainted with the manner in which its details were worked, and to enable us to institute such a parallel with our English work as in the case of the Early Gothic of the two countries, and in that of the Tudor architecture of England compared with the Flamboyant architecture of France, we have now no difficulty in making.

THE END.

Plate I.

Fig 1.

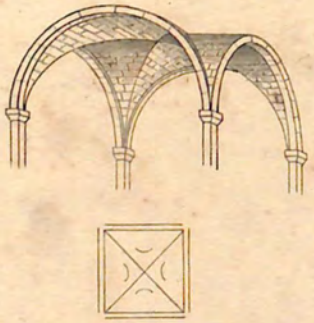


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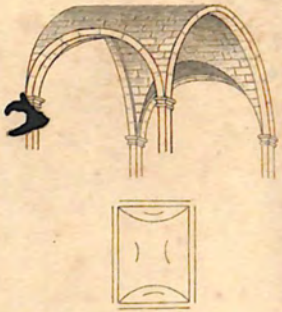


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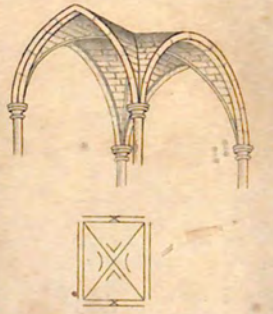


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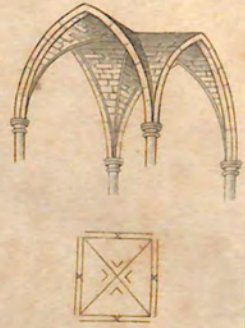


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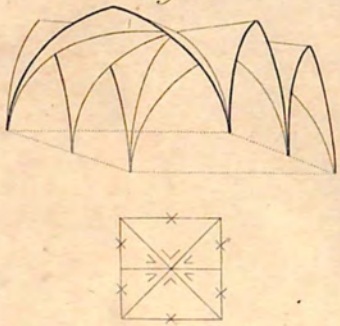


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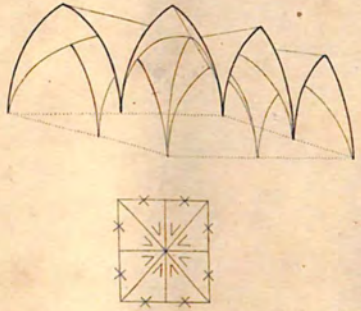
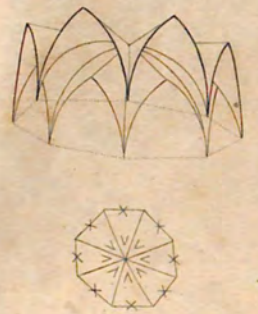


Fig 8.



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Plate II.

Fig 9. Mentz.

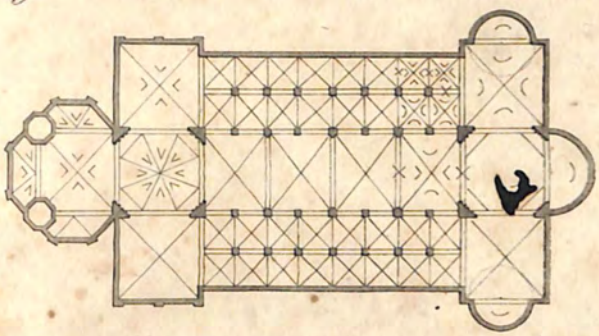


Fig 10. St. Apostoln.

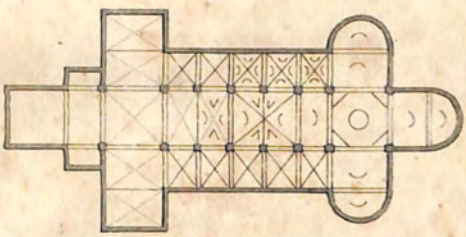
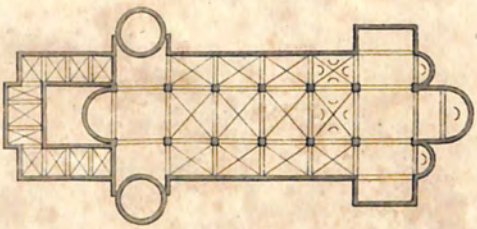


Fig 11. Laach.



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Plate IV.

Fig. 6.



Fig. 12. Sinzig.

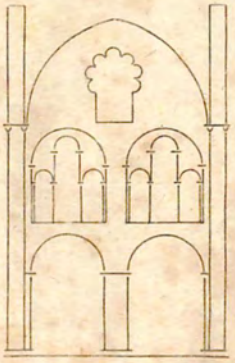


Fig. 13.



Fig. 14.

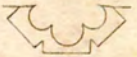
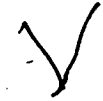


Fig. 15



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